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THE

MECHANISM OF MAN:

AN ANSWER TO THE QUESTION

WHAT AM I?

A POPULAR INTRODUCTION TO

MENTAL PHYSIOLOGY AND PSYCHOLOGY.

BY

EDWARD W. COX,

SERJEANT-AT-LAW, PRESIDENT OF THE PSYCHOLOGICAL SOCIETY OF GREAT BRITAIN.

BIBLIOTHECA MAR 1879 BODLEIANA

VOL. II.

THE MECHANISM IN ACTION.

LONDON:
LONGMAN AND CO., PATERNOSTER ROW.
1879.

265. j. 210

LONDON:
PRINTED BY HORACE COX, 10, WELLINGTON-STREET, STRAND.

PREFACE TO THE SECOND VOLUME.

COMMUNICATIONS from many persons in many countries inquiring, suggesting, reporting, have not only delayed the completion of this volume far beyond the time contemplated at the issue of the first, but they have led to a considerable extension of the volume itself. Correspondents and writers have directed my attention to portions of the work that appeared to them obscure, inducing me to a careful review of much that was there avowed to be conjectural or suggestive only. The result of that protracted review has been to cause modifications of some of the suggestions and to expand the proofs and arguments to meet the objections of others.

The treatise has been changed in shape and method of arrangement, and almost entirely rewritten. But in the extended reflection which this process of reconstruction has forced upon me, I have found no reason to depart in any degree from the conclusion arrived at by the argument, when the first edition was submitted to the public—the existence of a Soul in Man. The evidence afterwards collected and the further arguments founded upon it have all tended to confirm that conclusion. As of

course, it has been subjected to severe attacks from those of our Scientists and Journals who maintain the doctrine that Man is wholly material, Soul a myth, and future life a fiction. I make no complaint of this. To recognise in Man, as a fact in Nature and not as a dogma merely, something other than the body that perishes is, I am well aware, to expose myself to ridicule or abuse, to be called the victim of prepossession and "dominant idea," and charged with "diluted insanity." But having "the courage of my opinion" I do not shrink from the avowal of more than of mere faith—of a *firm conviction*, induced by positive evidence derived from this examination of the Mechanism of Man at rest and in action—that SOUL is a part of that Mechanism—that Man is in fact a Soul clothed with a body—that for this Soul there is a future, and in this future GOD.

If but a few readers should be led by the facts and arguments set forth in these pages to the like conviction, the labour of its production will be amply compensated.

Moat Mount, Hendon.
21*st January*, 1879.

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THE

MECHANISM OF MAN.

PART II.

THE MECHANISM IN ACTION.

BOOK I.

THE NORMAL ACTION OF THE MECHANISM OF MAN.

CHAPTER I.

INTRODUCTORY.

As with the mechanisms constructed by the ingenuity of man, so it is with the mechanisms of Nature. The observer can discover but little of the internal structure and the contrivances by which action to the desired end is brought about so long as the machine is in sound condition and all its parts are working in perfect harmony.

Only when the machine is disordered, when its wheels work irreg[illegible] or no[illegible] when there is discord between it[illegible]hen [illegible]cal phrase it is "out of gear," w[illegible]rce [illegible]gs, when the directing

intelligence is sleeping, or paralysed, or absent, when the animal structure is in the condition we term *unhealthy*, are we enabled to trace the connection of the parts, ascertain their several functions and uses and learn their mutual relationships.

This characteristic presents itself turn where we may in the exploration of Nature. The *normal* action is always so complete and equable, the co-ordination of parts is so perfect, that we can see little more than *results* and are almost unconscious of the processes by which they are brought about. The Physician studying for years the action of the healthy body could learn but little of its internal mechanism and of the functions of its various organs. He will procure more of this knowledge in a few hours of observation by the bedside of the sick, when the organs are not working in harmony and their functions are imperfectly performed, when the human mechanism is "out of gear," than in as many years of observation of the healthy body or even of the lifeless form—for anatomy does not reveal function.

So it is with Psychology. When the relationship between the mechanism of the body and the forces that move and direct it is in all respects normal very little can be learned of either. We see results alone and it is difficult to trace the visible actions to their immediate, much less to their ultimate, sources. But when this relationship is disturbed or dislocated, however slightly, the Psychologist finds facts and phenomena that throw a flood of light upon the obscurest problems of his science. Consequently the phenomena presented under these abnormal conditions properly demand his first and most earnest study and to them will his investigations and experiments be mainly directed.

Hence the necessary brevity of the first part of the scheme of this volume which proposes to treat of the *Mechanism of Man in action*. It will view that mechanism in its normal (or healthy) condition, when all its parts are

acting in complete co-ordination. From observation of this *healthy* action very little can be learned of structure or of function or of the relationship of the several parts of the mechanism. A short sketch of it will suffice before we proceed to the really instructive and more important examination of the mechanism in its *abnormal* conditions.

CHAPTER II.

THE ACTION OF THE MATERIAL MECHANISM IN HEALTH.

We view the wonderful mechanism of the body, with all its parts perfectly adapted to the conditions of an existence in a material—that is to say, a molecularly constructed—world. Whether that mechanism was made thus perfect, at the beginning or whether it has grown to be what it is by a slow process of evolution in millions of years, in no way concerns this treatise. We take the facts as we find them to be at this present and contemplate the human mechanism as it is now.

In such an inquiry we must not consult our own misleading consciousness alone. We must use our senses and observe that which is without us.

Contemplate this marvellous mechanism as it is seen in a swoon or in a trance—motionless and insensible. By what process is it to be set in motion?

A machine of human making would require that you should apply to it some motive force from without. That done, it would go through its series of mechanical actions always in precisely the same manner to precisely the same ends. If any part of it should break down or fall "out of gear," the entire structure would suddenly stand still. It would have no power of self-repair and only the skilful workman could set it going again.

But the machine we are now contemplating is set in motion, not by a force applied from without but by a force generated *within*. The *direction* of that force is determined by some powerful agent existing within the machine itself. That agent is indisputably an *intelligent*

agent, for the machine exhibits infinitely various motions directed to infinitely various ends, and those motions are by that intelligent agent self-adapted to those ends.

We have already (Vol. I. p. 69) contemplated the manner of this action—how the machine is formed—how it grows—how it lives—how it dies. In this place we have to consider only the relationship of the moving forces to the mechanism they move.

If it were possible, without destroying life, to extract the entire brain from that body what would be the result?

The machine would continue to move under the influence of the *vital* force. The involuntary actions would proceed as now. The heart would beat, the lungs play, the blood flow. Some actions might still appear to simulate intelligence, such actions as use has converted into *habit* and which the nerves, accustomed to certain motions in succession, might repeat by mere force of habit. But the vast majority of its actions would be indeterminate. They would be begun without intention and be directed to no end.

Thus the brain is proved to be that part of the mechanism which immediately controls its intelligent action. No brain, no mind. No mind, no *intelligent* motion.

Thus far we are on firm ground. Nobody now disputes the fact that the brain directs the motions of the mechanism. But at this point opinions diverge, some contending that the brain is the sole director, others that it is merely the mechanical agent of another director and is itself directed.

It matters not to the *present* part of this treatise in which aspect the brain is viewed. Whether it be the source of the moving Intelligence or only the material organ by which the Intelligence governs the actions of the material structure, is a question of high interest and importance, treated of elsewhere. But the answer given to that question in no way affects the present subject of investigation, for the brain is a part of

the mechanism and its relationship to the other parts of the mechanism is precisely the same, whether it be the original source of action or itself only a mechanism moved by another independent force. Undoubtedly the brain is the ostensible actor. To avoid controversy, it will be most convenient exclusively so to treat it in this division of the work, which is devoted to the contemplation of the mechanism in action.

The brain, then, being either the mind in action, as some assert, or merely the organ of the mind, as others contend, we shall be in accord as to certain *facts*. When the action of the brain is disturbed or impeded there is an instant failure of bodily action, proportioned generally to the extent of that impediment. Hence we learn that the brain is either the centre and seat of the intelligence that directs the motions of the body or is itself the source of that intelligence. These motions of the mechanism are of two kinds. (1) *Automatic Motions*, all of which are manifestly necessary to maintain the mechanism in healthy action; and (2) *Voluntary Motions*, which direct the movements of the body to ends desired by *something* within the body, which something differs from all of that body perceptible to our senses by the possession of intelligence, consciousness, individuality and Will. We do not yet certainly know the precise source of the *automatic* motions, but there is much evidence pointing to the ganglia below the brain hemisphere as being their seat. No doubt, however, is now entertained by any Physiologist that the brain is the immediate mechanism by which *voluntary* action is directed.

It should be noted that in all the automatic actions of the structure there is no consciousness of them so long as they are healthily performed. Digestion, assimilation, elimination, the processes of growth and repair, numerous and intricate as they are, continue to be executed without our knowledge even of the existence of the wonderful laboratory within us, so long as they work in the condition of perfect health. But if either fails or even flags, we are at once made painfully con-

scious of its existence and its operations. We know nothing of the process of digestion in its healthy state, but we are instantly informed of the presence of *in*digestion. We learn that we have lungs when they are inflamed or congested. We are conscious that we possess a heart when its force begins to fail and itself becomes feeble and fluttering.

Otherwise it is with the *voluntary* actions. We *desire* to do something. We *Will* to do it. The body obeys the Will and the act is done. We are conscious of each of these processes if we pause to review them. But in the vast majority of our voluntary actions we do *not* pause at the moment to reflect upon the successive actions of mind and body executed between the conception of the desire and the performance of the act. Try it thus. A thought suddenly comes to you and you wish to express it in words and in writing. You construct a sentence in which to embody your thought and the desired act is done. It is the work of an instant. All you are seen to do is to use your hand, hold the pen and cover the paper with some marks. What you really do is a complicated process. The desire arises in the mind to send some information to a friend. The *Will* (whatever that may be), set in motion by the desire, conveys its command to the nerve centres at the base of the brain and these, acting through the nerve threads that link the whole body to the brain, move the muscles to take the paper and the pen. Then the brain turns the thought into words and dictates to the muscles of the hand the motions it is to make in order to set down the signs that are to suggest the same words to the mind of the reader and by those words the thought your mind had desired to convey to him. But so long as the various parts of the mechanism employed in this series of actions are in a condition of health you are not conscious of any one of them. You feel the impulse and you see the result and this is all you know. With the voluntary as with the involuntary actions, if any part of the mechanism employed in the process be disordered, there

intelligence is sleeping, or paralysed, or absent, when the animal structure is in the condition we term *unhealthy*, are we enabled to trace the connection of the parts, ascertain their several functions and uses and learn their mutual relationships.

This characteristic presents itself turn where we may in the exploration of Nature. The *normal* action is always so complete and equable, the co-ordination of parts is so perfect, that we can see little more than *results* and are almost unconscious of the processes by which they are brought about. The Physician studying for years the action of the healthy body could learn but little of its internal mechanism and of the functions of its various organs. He will procure more of this knowledge in a few hours of observation by the bedside of the sick, when the organs are not working in harmony and their functions are imperfectly performed, when the human mechanism is "out of gear," than in as many years of observation of the healthy body or even of the lifeless form—for anatomy does not reveal function.

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CHAPTER III.

OF UNCONSCIOUS CEREBRATION.

After some hesitation, this now accepted mental process is referred to the section that treats of the *normal* action of the Mechanism, because it is in no way associated with unhealthy or accidental conditions of the organism, but is common to all in the daily experiences of their lives. Moreover, it is not the result of any disordered action of the brain, but of its peculiar mechanism.

To Dr. Carpenter the credit is due of having distinctly detected and given an appropriate name to this mental condition, the recognition of which solves so many problems in Psychology hitherto deemed to be insoluable.

Few discoveries have been more ridiculed and abused than this by the metaphysical school of Mental Philosophers. None, however, is more completely confirmed by examination of mental facts and phenomena. This instance supplies an admirable illustration of the good results that may be anticipated from the systematic pursuit of Psychology, as other sciences are pursued, by observation instead of *à priori* argument, and by deducing theory from facts instead of fitting facts to theories.

Dr. Carpenter was not the first to observe the phenomena of Unconscious Cerebration, but he first assigned them to their true source. No mental or psychical facts can be new. They are as old as man. They have existed at all times, in all countries. Whatever of

novelty appears to belong to any of them is due to more careful observation with more unprejudiced eyes and minds. For centuries Soul was a theme prohibited to scientific inquiry and even forbidden to thought. The Soul, its structure, its qualities and its relationship to mind and body were held not to be fit subjects for Science but to belong exclusively to the province of Theology. To touch them was impiety. They were mysteries to be taken upon trust but not to be examined by reason. Psychology has been but recently emancipated from this mental thraldom. Within the memories of many now living the very being of Soul was treated as a faith to be accepted and not as a fact to be investigated. This is why it *seems* a new Science. But it is new in seeming only.

The mental condition to which the appropriate name of *Unconscious Cerebration* has been given may be thus described.

In certain conditions some of the mental faculties work without consciousness by ourselves of their action. The brain, or some portion of it, thinks, feels, has ideas, goes through complicated and elaborate courses of thought and even prompts to action without consciousness of the operation by the individual who, at the same moment, is consciously employed in some other mental work. Sometimes there is a self-consciousness of the *results* of such action; sometimes also the results are cognizable by others although quite unrecognized by the actor.

This curious mental condition has been noticed by Metaphysicians, especially by LIEBNITZ and Sir W. HAMILTON, under the names of "Latent Thought" and "Preconscious Activity of the Soul." But the name given to it by Dr. CARPENTER is much more appropriate and by that it will doubtless be recognised hereafter when it takes its place as a permanent chapter in Mental Science. The following are some of the more familiar instances of it, collected by Miss COBBE in her interesting paper on the subject contributed to *Macmillan's Maga-*

zine and since reprinted in a volume of great value and interest. (*a*)

For example: It is an everyday occurrence to most of us to forget a particular word, or a line of poetry, and to remember it some minutes or hours later, when we have ceased consciously to seek for it. We try, perhaps anxiously at first, to recover it, well aware that it lies somewhere hidden in our memory, but unable to seize it. As the saying is, we "ransack our brains for it," but failing to find it, we at last turn our attention to other matters. By and by, when, so far as consciousness goes, our whole minds are absorbed in a different topic, we exclaim, "Eureka! The word, or verse, is—so and so." So familiar is this phenomenon that we are accustomed in similar straits to say, "Never mind: I shall remember the missing word by and by, when I am not thinking of it:" and we deliberately turn away, not intending finally to abandon the pursuit, but precisely as if we were possessed of an obedient secretary or librarian, whom we could order to hunt up a missing document, or turn out a word in a dictionary, while we amused ourselves with something else. The more this very common phenomenon is studied, the more I think the observer of his own mental processes will be obliged to concede, that, so far as his own conscious Self is concerned, the research is made absolutely without him. He has neither pain, nor pleasure, nor sense of labour in the task, any more than if it were performed by another person; and his conscious Self is all the time suffering, enjoying, or labouring on totally different ground.—P. 308.

Again there is the ordinary but most mysterious faculty possessed by most persons of setting over-night a mental alarum clock and awaking, at will, at any unaccustomed hour out of dreamless sleep. Were we up and about our usual business all night, without seeing or hearing a timepiece, or looking out at the stars or the dawn, few of us could guess within two or three hours of the time. Or, again, if we were asleep and dreaming with no intention of rising at a particular time, the lapse of hours would be unknown to us. The count of time in dreams is altogether different from that of our waking life, and we dream in a few seconds what seem to be the events of years. Nevertheless, under the conditions mentioned, of a sleep prefaced by a resolution to waken at a specified hour, we arrive at a knowledge of time unattainable to us either when awake or when sleeping without such prior resolution.—P. 309.

Unconscious Cerebration attends the performance of

(*a*) *Darwinism in Morals, and other Essays*, by Frances Power Cobbe. London: Williams and Norgate, 1872.

many—Miss COBBE says, of all—*Voluntary* acts, meaning by this term acts done with the *permission* of the Will, which are to be distinguished from *volitional* motions that require a direct *exertion* of the Will.

Now of these three classes of action it would appear that all Voluntary acts, as we have defined them, are accomplished by Unconscious Cerebration. Let us analyse the act of Walking, for example. We intend to go here or there; and in such matters "he who wills the end wills the means." But we do not deliberately think, "Now I shall move my right foot, now I shall put my left on such a spot." Some unseen guardian of our muscles manages all such details, and we go on our way, serenely unconscious (unless we chance to have the gout, or an ill-fitting boot) that we have any legs at all to be directed in the way they should go. If we chance to be tolerably familiar with the road, we take each turning instinctively, thinking all the time of something else and carefully avoid puddles or collisions with fellow-passengers, without bestowing a thought on the subject. Similarly, as soon as we have acquired other arts besides walking—reading, sewing, writing, playing on an instrument—we soon learn to carry on the mechanical part of our tasks with no conscious exertion. We read aloud, taking in the appearance and proper sound of each word and the punctuation of each sentence, and all the time we are not thinking of these matters, but of the argument of the author; or picturing the scene he describes; or, possibly, following a wholly different train of thought. Similarly in writing with "the pen of a ready writer" it would almost seem as if the pen itself took the business of forming the letters and dipping itself in the ink at proper intervals, so engrossed are we in the thoughts which we are trying to express. We unconsciously cerebrate that it will not answer to begin two consecutive sentences in the same way; that we must introduce a query here or an ejaculation there and close our paragraphs with a sonorous word and not with a preposition. All this we do not do of *malice prepense*, but because the well-tutored sprite whose business it is to look after our p's and q's, settles it for us as a clerk does the formal part of a merchant's correspondence.

Music-playing, however, is of all others the most extraordinary manifestation of the powers of unconscious cerebration. Here we seem not to have one slave but a dozen. Two different lines of hieroglyphics have to be read at once, and the right hand is to be guided to attend to one of them, the left to another. All the ten fingers have their work assigned as quickly as they can move. The mind (or something which does duty as mind) interprets scores of A sharps and B flats and C naturals, into black ivory keys and white ones, crotchets and quavers and demi-semi-

quavers, rests. and all the other mysteries of music. The feet are not idle, but have something to do with the pedals; and, if the instrument be a double-actioned harp, they have a task of pushings and pullings more difficult than that of the hands. And all this time the performer, the *conscious* performer, is in a seventh heaven of artistic rapture at the results of all this tremendous business; or perchance lost in a flirtation with the individual who turns the leaves of the music-book, and is justly persuaded she is giving him the whole of her soul.—Pp. 310, 311.

Very remarkable phenomena of Unconscious Cerebration are produced in certain conditions of abnormal excitement.

Among these I class those mysterious Voices, issuing we know not whence, in which some strong fear, doubt, or hope finds utterance. The part played by these Voices in the history both of religion and of fanaticism it is needless to describe. So far as I can judge, they are of two kinds. One is a sort of lightning-burst suddenly giving intensely vivid expression to a whole set of feelings or ideas which have been lying latent in the brain and which are in opposition to the feelings and ideas of our conscious selves at the moment. Thus the man ready to commit a crime hears a voice appealing to him to stop; while the man praying ardently for faith hears another voice say, "There is no God." Of course the good suggestion is credited to Heaven and the other to the powers of the Pit; but the source of both is, I apprehend, the same, namely, Unconscious Cerebration. The second class of Voices are the result, not of unconscious Reasoning, but of unconscious Memory. Under some special excitement, and perhaps inexplicably remote association of ideas, some words which once made a violent impression on us are remembered from the inner depths. Chance may make these either awfully solemn or as ludicrous as that of a gentleman, shipwrecked off South America, who, as he was sinking and almost drowning, distinctly heard his mother's voice say, "Tom! did you take Jane's cake?" The portentous inquiry had been addressed to him forty years previously and (as might have been expected) had been wholly forgotten. In fever, in a similar way, ideas and words long consigned to oblivion are constantly reproduced; nay, what is most curious of all, long trains of phrases which the individual has indeed heard, but which could hardly have become a possession of the memory in its natural state, are then brought out in entire unconsciousness. My readers will recall the often-quoted and well-authenticated story of the peasant girl in the Hôtel Dieu in Paris, who in her delirium frequently "spouted" Hebrew. After much inquiry it was found she had been cook to a learned priest who had been in the habit of reading aloud his Hebrew books in the

room adjoining her kitchen. A similar anecdote is told of another servant girl who in abnormal sleep imitated some beautiful violin playing which she had heard many years previously.

From Sounds to Sights the transition is obvious. An Apparition is to the optical sense what such a Voice as I have spoken of above is to the hearing. At a certain point of intensity the latent idea in the unconscious brain reveals itself and produces an impression on the sensory; sometimes affecting one sense, sometimes another, sometimes perhaps two senses at a time.—Pp. 316, 317.

Drunkenness is a condition in which the conscious self is more or less completely obfuscated, but in which unconscious cerebration goes on for a long time. The proverbial impunity with which drunken men fall without hurting themselves can only be attributed to the fact that the conscious will does not interfere with the unconscious instinct of falling on the parts of the body least liable to injury. The same impunity is enjoyed by persons not intoxicated, who at the moment of an accident do not exert any volition in determining which way they shall strike the ground. All the ludicrous stories of the absence of mind of tipsy men may obviously be explained by supposing that their unconscious cerebration is blindly fumbling to perform tasks needing conscious direction. And be it remembered that the proverb "*in vino veritas*" is here in exact harmony with our theory. The drunken man unconsciously blurts out the truth, his muddled brain being unequal to the task of inventing a plausible falsehood.—P. 321.

The conclusion is thus stated:

Thus it would seem that neither Memory nor Volition have any constant relation to unconscious cerebration. We sometimes remember, and sometimes wholly forget its action; and sometimes it fulfils our wishes, and sometimes wholly disregards them. The one constant fact is, that *while the actions are being performed*, the Conscious Self is either wholly uncognisant of them or unable to control them. It is either in a state of high activity about other and irrelevant matters, or it is entirely passive. In every case the line between the Conscious Self and the unconsciously working brain is clearly defined.—P. 328.

Dr. CARPENTER suggests a Physiological explanation of the phenomena of Unconscious Cerebration. (*a*)

All parts of the Nervous system appear to possess certain

(*a*) Report of Meetings of Royal Institution. Dr. Carpenter's Lecture, March 1, 1868, pp. 4, 5.

powers of automatic action. The *Spinal cord* has for primary functions the performance of the motions of respiration and swallowing. The automatic action of the *Sensory ganglia* seems to be connected with movements of protection — such as the closing the eyes to a flash of light—and their secondary use enables a man to shrink from dangers of collisions, etc., before he has time for conscious escape. Finally, we arrive at the automatic action of the *Cerebrum;* and here Dr. Carpenter reminds us that, instead of being (as formerly supposed) the centre of the whole system, in direct connection with the organs of sense and the muscular apparatus, the Cerebrum is, according to modern physiology,—

"A superadded organ, the development of which seems to bear a pretty constant relation to the degree in which intelligence supersedes instinct as a spring of action. The ganglionic matter which is spread out upon the surface of the hemispheres, and in which their potentiality resides, is connected with the Sensory Tract at their base (which is the real centre of conveyance for the sensory nerves of the whole body) by commissural fibres, long since termed by Reid, with sagacious foresight, 'nerves of the internal senses,' and its anatomical relation to the sensorium is thus precisely the same as that of the Retina, which is a ganglionic expansion connected with the Sensorium by the optic nerve. Hence it may be fairly surmised—1. That as we only become conscious of visual impressions on the retina when their influence has been transmitted to the central sensorium, so we only become conscious of ideational changes in the cerebral hemispheres when their influence has been transmitted to the same centre; 2. That as visual changes may take place in the retina of which we are unconscious, either through temporary inactivity of the Sensorium (as in sleep), or through the entire occupation of the attention in some other direction, so may ideational changes take place in the Cerebrum, of which we may be unconscious for want of receptivity on the part of the Sensorium, but of which the results may present themselves to the consciousness as ideas elaborated by an automatic process of which we have no cognizance."

The conclusion drawn by the writer from the whole investigation is in accord with that maintained throughout this treatise—namely, that the phenomena of Unconscious Cerebration prove the existence of a Conscious Self—that is, an individual being—that is, a SOUL—distinct from the brain, which in this condition is acting unconsciously to that Soul—or Self.

Are the anti-Materialists right to say that the agent in un-

conscious cerebration is, "We, ourselves, who merely use our brains as their instruments;" or are the Materialists right who say, "It is our physical brains alone, and these brains are ourselves"? With regard to the first reply, I think that all the foregoing study has gone to show that "we" are *not* remembering, *not* fancying, *not* understanding, what is being at the moment remembered, fancied, or understood. To say, then, that in such acts "we" are "using our brains as our instruments," appears nothing but a servile and unmeaning adherence to the foregone conclusion that our brains are nothing else than the organs of our will. It is absurd to call them so when we are concerned with phenomena whose speciality is that the will has nothing to do with them. So far, then, as this part of the argument is concerned, I think the answer of the anti-Materialists must be pronounced to be erroneous. The balance of evidence inclines to the Materialists' doctrine that the brain itself performs the mental processes in question, and, to use Vogt's expression, "secretes Thought" automatically and spontaneously.

But if this presumption be accepted provisionally, and the possibility admitted of its future physiological demonstration, have we, with it, accepted also the Materialist's ordinary conclusion that *we* and our automatically thinking brains are one and indivisible? If the brain can work by itself, have we any reason to believe it ever works *also* under the guidance of something external to itself, which we may describe as the Conscious Self? It seems to me that this is precisely what the preceding facts have likewise gone to prove—namely, that there are two kinds of action of the brain, the one Automatic, and the other subject to the will of the Conscious Self; just as the actions of a horse are some of them spontaneous and some done under the compulsion of his rider. The first order of actions tend to indicate that the brain "secretes thought"; the second order (strongly contrasting with the first) show that, beside that automatically working brain there is another agency in the field under whose control the brain performs a wholly different class of labours. Everywhere in the preceding pages we have traced the extraordinary *separation* which continually takes place between our Conscious Selves and the automatic action of the organ, which serves as our medium of communication with the outward world. We have seen, in a word, that we are not Centaurs, steed and rider in one, but horsemen, astride on roadsters which obey us when we guide them, and when we drop the reins, trot a little way of their own accord or canter off without our permission.

When we place the phenomena of Unconscious Thought on one side, and over against them our Conscious Selves, we obtain, I think, a new and vivid sense of the separation, not to say the antithesis, which exists between the two, close as is their mutual

interdependence. Not to talk about the distinction between object and subject, or dwell on the absurdity (as it seems to me) of the proposition that we ourselves are only the sum-total of a series of cerebrations—the recognition of the fact *that our brains sometimes think without us*, seems to enable us to view our connection with them in quite a new light. So long as all our attention was given to Conscious Thought, and philosophers eagerly argued the question, whether the Soul did or did not ever sleep or cease to think, it was easy to confound the organ of thought with the Conscious Self who was supposed alone to set it in action. But the moment we marshal together for review the long array of the phenomena of Unconscious Cerebration, the case is altered; the severance becomes not only cogitable, but manifest.—*Miss Cobbe*, Pp. 331-333.

These are instances familiar to all of us because of frequent occurrence. The attention of the Reader being now directed to the condition, he will daily find new proofs of its presence. He will discover also in Unconscious Cerebration the explanation of many of the more rare Psychological phenomena treated of in the following pages.

Differing, with all due respect, from Dr. CARPENTER upon a question of Physiology, I yet venture to suggest another and more probable cause for Unconscious Cerebration.

I trace it directly to the duplex structure of the brain described in the first volume (p. 69), to which the Reader is referred for full information respecting it. Enough here to remind him that we have *two* brains that are two distinct mental mechanisms having two distinct and perfect sets of the material organs of the mental faculties. The two brains commonly act in strict co-ordination, precisely as do the two eyes. But sometimes they act separately and sometimes one acts alone.

When the two brains are working separately we have the phenomenon of Unconscious Cerebration, which is produced thus.

The Conscious Self can take cognizance of one impression only brought to it at one and the same instant of time. It is a condition of the material structure that we shall receive and perceive impressions in succession only.

It is this condition of perception that imposes upon us our notions of time. If two or more impressions are presented together to the brain, the Conscious Self takes cognizance of that to which *attention* is given because it is the most vigorous or vivid. But because we can recognize one impression only at one and the same instant of time, it does not follow that no other ideas or emotions, thoughts or feelings, are formed. On the contrary, the undoubted existence of the double brain makes it highly probable that in certain conditions the two brains may be working separately—one brain exercising one faculty, the other brain another faculty. In such case the brain most actively employed and producing the most energetic expression would engage the *attention* of the Conscious Self and there would be *consciouness* of the action of that brain, with *un*consciousness of the action of the other brain, which would continue to work until its increased energy, by the excitement of its own action and the diminished energy of the brain that has done its work, compelled *attention* to be given to it in its turn. *Then* it imparts its own ideas or emotions to the Conscious Self. These may or may not be in accordance with the train of thought or feeling that had been previously imparted by the other brain; but the process described would certainly produce precisely the results upon the mental operations that are so vividly described by Dr. CARPENTER and Miss COBBE as instances of Unconscious Cerebration.

That the mind can receive many more impressions than it can *perceive* is established by the phenomena of memory, which receives and retains innumerable impressions of whose access we were entirely unconscious. So with mental operations. If two such brain actions are concurrent, and but one is perceived, the other is not the less a work done and its results become perceptible when the condition for perception occurs.

But Unconscious Cerebration points also to a conclusion of the utmost interest and importance to

Psychology. It supplies very potent proof of the existence of Soul as part of the Mechanism of Man, a conclusion which may be thus presented.

Expressed in scientific language, the condition intended to be described is a peculiar state of the mental organism in which the whole brain, or a portion of the brain, performs its functions without the control of the Will and without any intelligence of its action being conveyed to the "I"—"the Mind"—"the Soul"—or whatever name is preferred by which to signify the individual being to whom that brain belongs.

Thus defined, we start with this most important admission—that the brain is *not* the individual being; that if ever there is unconsciousness of its action that "unconsciousness" must refer to something other than itself. It would be a contradiction in terms and an absurdity in fact to say that the conscious brain is busy unconsciously to itself. If consciousness is in the material brain it could not act without being conscious of its own actions. If consciousness is not in itself, if the unconsciousness is that of something other than the brain, which *something* is conscious of the brain's action, we have conclusive evidence that this conscious entity is something other than the body of which the brain is a part. Does not this powerfully confirm the argument that we possess Souls—or rather that we *are* Souls possessing bodies?

It will be observed that Dr. CARPENTER does not trace the physiological process nor explain in any way the cause of his discovered fact of Unconscious Cerebration. He could not do so, indeed, prepossessed as he is by the dominant idea that the whole mind is employed in every mental act. This Unconscious Cerebration is a fact in itself utterly inconsistent with his own theory of mental action, as would have been made unpleasantly apparent if he had attempted an explanation of it.

Few doctrines have been more abused and ridiculed by the Metaphysical School of Mental Philosophers than has Dr. CARPENTER's Unconscious Cerebration.

But none has been more completely confirmed by further examination of mental facts and phenomena. The conception of it once clearly formed, every day, almost every hour, of our lives supplies us with proofs of Unconscious Cerebration, whether we note the action of our own minds or observe the actions of others.

CHAPTER IV.

OF MENTAL SYMPATHY AND COMMUNION.

It is the misfortune of Psychology that the greater portion of the names given to its phenomena are terms that express some foregone conclusion. It is a too common error in all science. Scientific names should express nothing but *the fact*. They should studiously avoid anything that, however remotely, appears to assign a cause for or the source of the fact.

Such a term is *Thought-reading*. It implies that one mind *reads* something that is in another mind. The term is misleading. It is understood often by those who use it, and always by those to whom it is addressed, as being identical with reading a book or viewing a picture. The common conception of "thought-reading" is that thoughts are things—*words* printed somehow upon the mind or brain—which the person having the faculty of thought-reading peruses, precisely as he would read a book; or that it is a picture positively painted upon one mind and actually viewed by the other mind.

With such a name and such conceptions of the thing, it is not surprising that the fact itself should be received with incredulity as wholly inconsistent with what we know of brain structure and mental action. Thoughts are not *written* upon the brain, and if they were so written the *eye* of another person could not read them there. Even the overwhelming evidence of the existence of the phenomenon has not sufficed to remove the prejudice caused by the unfortunate name inflicted upon it. At some risk, I prefer to throw aside that familiar but mis-

leading name and to substitute for it one that precisely expresses the fact, without appearing to affirm the cause or source of the fact or the means by which it is produced. I therefore adopt the descriptive but not prejudging title of *Mental Sympathy and Communion*, as being the mental action intended to be designated, whatever may be the true explanation of it.

The *fact* is that, under certain unknown conditions, one Mind can communicate *ideas* to another Mind through some other medium than the bodily senses. *Emotions* can be communicated in like manner. Sympathy of emotion between minds has been recognised long ago, not only by poets but by philosophers. The fiercer passions were known to be contagious. The contagious influence of the gentler emotions was acknowledged under the name of *sympathy*. But so far as my own researches have gone I have found no endeavour to trace the mental or physical process by which this phenomenon is produced. By many it is assumed to be excited only by some outward *expression* of the emotion in face, form, or voice which, being perceived by the senses of the other party, excites in him the corresponding passion or emotion by simple suggestion. But a larger survey of the phenomena contradicts this conclusion. It is within the experience of all careful observers that sympathies are often excited without a visible or audible sign. A striking instance of this is shown in panic. A sudden fear seizes on a multitude. It may be wholly without cause, or if there be a cause it is known only to a few. Nevertheless it is felt by all, being communicated so instantaneously as to appear simultaneous. Ask why they fly, nine out of ten will answer, "I do not know; I felt an ungovernable terror; I lost self-control; I rushed on I cared not where, nor how, nor why." And this sympathy seems to be multiplied by the number of communicating minds. A fear that would not turn one man pale will make half-a-dozen men tremble and put a hundred men to flight. The influence of sympathetic emotion upon public assemblies

is too familiar to need description. It is exhibited in the remarkable phenomena of that which has been so absurdly called electro-biology. It is seen in natural somnambulism and its allied abnormal conditions, treated of in a later chapter. But while sympathy of mind is undisputed in relation to *emotions*, there has been no distinct recognition of a similar community of *ideas*.

Yet does it exist. There are few who could not tell of its frequent occurrence within their own experience. Who has not many times found some thought straying into his mind apparently without a cause and associated with no previous thoughts (perhaps on a theme long forgotten) and the friend by his side has been thinking the same thought? The saying "Talk of the devil and you see his horns" is the embodiment of a fact so common as to have become a proverb. A person of whose very whereabouts you are ignorant and who had not "been in your mind" for years, suddenly comes into your thoughts without any perceptible cause and presently he appears. Such an instance occurred lately within my own knowledge. A near relative had heard nothing of an old schoolfellow for fifteen years, did not even know if she was living, nor had that friend of long ago been once in her thoughts. At breakfast she said, "It is very odd, I have been thinking all the morning of Mrs. D——. I had quite forgotten her." That very day's post brought a letter from the long forgotten friend. This is surely something more than a coincidence. But similar cases scarcely less striking in their circumstances are continually occurring to all of us.

The phenomena of Somnambulism and Psychism abound in illustrations of this communion of Mind; but these will be treated of in their proper places as abnormal phenomena. I refer here only to the *normal* occurrence of that mental communion.

I venture to suggest if something like the same phenomenon may not exist in the lower animals? Is it certain that they do not communicate thus? All who have observantly noted their ways agree that they do in

some unknown manner exchange *ideas* as well as sympathise with emotions. All bird communities that flock together, such as rooks, starlings, plovers and the like, have leaders and obey commands that certainly are not conveyed by the voice. Ants and bees silently carry to their fellows notice where rich spoil is to be obtained. Dogs are often seen to meet, put their heads together and then depart on a common expedition of plunder. I have a pair of ponies who silently say to each other as plainly as by words, "Faster." "Slower." Observe any of our domestic animals. Can you doubt that they possess some faculty that performs for them some such process for communication of ideas and thoughts as speech does for us? Certainly their converse is neither by sounds nor by signs. May it not be by that *communion of mind* which we find to exist among ourselves and which, abnormal now and of infrequent occurrence, may once have been the means of inter-communication with ourselves also? It is consistent with the theory of evolution. Is what is so absurdly called "Thought-reading" a survival from a time when it was with us—as it is now with the lower animals—the sole means of mental communication?

This is, however, merely a suggestion thrown out to the thoughtful, for as yet it is little more than a reasonable and probable conjecture.

I am not here considering "Supersensuous Perception," with which what is called "Thought-reading" is commonly confused. The former is an abnormal condition and as such will be treated of hereafter. The present reference is strictly to that sympathy and communion between minds which are found in the common intercourse of the world under purely normal conditions and which probably occur very much more frequently than our consciousness informs us. We are in truth quite ignorant how ideas and emotions come into the mind. It may well be that many, if not most, of them are prompted by the imperceptible influences of other minds about us. *You* suddenly think of something because *my*

thought has suggested *your* thought. If, when three or four persons are together, what is passing at the same moment in each mind could be revealed on the instant, doubtless some curious and instructive discoveries of simultaneous ideas would prove the fact that there is between these minds an unconscious communion and sympathy.

No supernatural power need be invoked to explain this phenomenon. Physiology will assist Psychology to a solution of the problem. The brain is the material—that is the *molecular*—organ by which the operations called mental are conducted. This brain is constructed of a countless multitude of fibres, so fine that many millions of them are contained within the compass of a sixpence. These fibres are instruments of infinite and inconceivable delicacy. They vibrate to waves of the atmosphere and respond to vibrations of other brain fibres that are imperceptible to any sense. Even the vastly coarser strings of a harp take up waves of the atmosphere that our senses do not perceive and echo the sound made by other harp-strings in motion.

But the atmosphere is not the only medium for transmitting motion. Itself floats in a more pervading fluid which physicists have agreed to call "the ether." Any person who has witnessed the experiments of Professor TYNDALL with sensitive flames, showing how the atmosphere in a large room cannot be stirred so slightly that the flame will not betray the motion, will readily understand how the vibration of the finest brain fibre may be communicated to other brain fibres. The telephone is a still more startling illustration of the multitudinous atmospheric waves imperceptible to our very obtuse senses, which can perceive only the smallest fraction of the things and motions that surround us. But infinitely more delicate must be the waves of the ether. *They* must penetrate the most compact substance—solidity being only a human conception, not a fact in nature. Brain action is brain motion. When *any* mental act is done the fibres of the brain are set in motion

and of these motions the Conscious Self takes cognisance. The psychological conclusion from this physiological fact will be at once apparent. An idea or thought in my mind is attended with certain molecular movements of certain fibres in my brain. The motion of those fibres in my brain is communicated by ether waves to the corresponding fibres in your brain, setting up in them a similar motion, precisely as the harp that is played upon evokes the same tone from the strings of the untouched harp. Those motions of my brain impart to your brain identical impressions, and consequently we think and feel in unison—not, of course, always in concert, but in the same direction.

These impulses communicated from brain to brain are not perceived at all times because we are constructed to be conscious of one impression only at one instant of time and for the most part Consciousness is engaged in taking cognisance of some other more vivid impressions. Moreover, some brains are less sensitive than others—have coarser fibres—and therefore are more slow to catch the finer impulses. Let it be understood that this explanation is presented to the reader, not as the assertion of a proved fact, but merely as a suggestion of the manner in which the undoubted phenomena of *Mental Communion and Sympathy* might be accomplished by purely natural means, without attributing them to the supernatural, the miraculous or the spiritual.

CHAPTER V.

BODY, MIND AND SOUL IN HEALTH.

WHEN *Body*, *Mind* and *Soul* are in a condition of perfect health they work in perfect harmony. The Conscious Self—the "I"—the "You"—receives and perceives through the medium of the nerve structure (when the whole mechanism is in its normal condition), the impressions made upon the nerves by the external world. Through the agency of the same mechanism the Conscious Self expresses its Will upon the external world, thus controlling intelligently the action of the nerve forces by which the direction of bodily motion is determined. The manifold functions we term collectively "Mind" are, in this condition of health, performed with ease and rapidity and no jarring of any wheel, no irregularity of any action, reveals even to the consciousness of the individual, much less to the external observer, the mechanism, physical and psychical, by which the processes of perception, thought, will and obedient motion are conducted. Soul and body, the Conscious Self and the molecular mechanism are in the normal condition of man so accurately adjusted that to himself and in outward aspect they are as one. Their relationship is so perfect, their mutual action so admirably contrived, that there is no consciousness of double action. The Will to do and the act done appear to us to be identical. Wherefore? Because the Soul has not, as is the vulgar notion, a local habitation in some special part of the molecular body, but possesses the whole being, transfusing the entire molecular struc-

ture with its own non-molecular structure. Hence the mutual action and reaction are instant and the links between them imperceptible. Of the functions of the bodily organs we have no consciousness so long as they work healthily; only when they are disordered do we learn that such processes are performed within us. Precisely so it is with the relative functions of Soul and body. In a condition of perfect health we have no consciousness of their separate existence nor of the nature of their relationship. Only when that relationship is imperfectly established by original constitutional structure, or disturbed or dislocated by disease or accident, can we discover the existence of the forces actually at work within us and learn something of their operations and functions by experience of the results of that accidental irregularity.

To this the attention of the Reader is now invited.

As the Physician learns the functions of the body, not by studying them when performed healthily but by careful and prolonged observation of them in disease, so does a rational Psychology demand that the relationship and functions of Mind and Soul shall be studied, not by noting merely the self-consciousness of the student, not by metaphysical abstractions, not by argument *à priori*, but by experimental observation of the whole mechanism of Man in its abnormal conditions, when the component parts of that mechanism are thrown out of gear and abnormal action reveals the hidden wheels of the structure and the relationship of its various parts. Psychology asserts confidently that this is the true scientific method of research, to the adoption of which Physical science has been indebted for all its triumphs.

That there are mental and psychic phenomena in abundance offering themselves to observation and experiment by Science will not be denied. The action of the disordered mechanism is plain to the most careless observer when exhibited in its irregular operations upon the external world and upon the mechanism itself.

To these the attention of the Student of Mental

Philosophy and Psychology will now be directed. The number of such instructive abnormal conditions and the abundance and variety of the phenomena attendant upon them will doubtless surprise him. But he will be more surprised to discover how intimately they are allied and how all of them combine in overwhelming proof that the Mechanism of man is constructed of *something* more and other than the material molecular body—whatever that *something* may be and by whatever name we may be pleased to call it.

BOOK II.

THE ABNORMAL ACTION OF THE MECHANISM.

CHAPTER I.

INTRODUCTION.—THE PSYCHOLOGY OF THE FUTURE.

Let it be clearly understood by opponents and supporters alike that the writer of this book and the Psychologists who have formed "The Psychological Society of Great Britain" frankly avow their design to establish their Science upon a new basis. They propose to depart altogether from what they admit to have been the time-honoured method of metaphysical argument, cloudy abstractions and the study of self-consciousness and to adopt the method of exploration by *observation of phenomena and collection and collocation of facts.* This method has been successfully pursued in all other departments of Natural Science and we can discover no satisfactory reason why it should not prove to be equally advantageous in this. That the metaphysical method should be preserved in Mental Philosophy and Psychology so long after it has been abandoned in all other

branches of physics is probably due to the superstitions that have enwrapped the subject of Mind and Soul and the general assumption that there is in them something of a sacred mystery to pry into which too closely savours of sacrilege. To treat them as we treat electricity and magnetism and the other imperceptible and imponderable forces of Nature, to subject them to experimental examination and deal with them as we would deal with the phenomena of the galvanic battery—that is to say, by noting the action of *im*perceptible forces upon the molecular matter that is perceptible to us—was deemed by the Scientists a waste of time and thought, because they denied the very existence of any such entities. By the rest of the world, who accepted the existence of Soul as a matter of faith though not of knowledge, scientific investigation of it was looked upon as tainted with wickedness because inquiry seemed to question the soundness of that faith.(*a*)

But it was plain to the few who shared neither the scepticism of the Scientists nor the unquestioning trustfulness of the ignorant, that the confessed stationary aspect of Psychology and Mental Philosophy—their standing still while the other sciences were so rapidly advancing—must be due to some great defect in the method of study. Once emancipated from the prepossession that Mind and Soul could be examined only by the inner consciousness and the truth

(*a*) I must except from this protest against the methods of the Metaphysicians generally the works of Mr. Herbert Spencer, to whom the credit is due of being the first of the British Psychologists to depart from the ancient ways and claim for Psychology that it be erected upon a foundation of *facts*. Our Science owes to him a large debt of gratitude for having collected by unwearied industry a vast body of such facts. The only complaint to be made is that he has not sufficiently recognised the value and importance of studying the Mechanism of Man in its abnormal conditions. If this has been found to be the only satisfactory method of studying Physiology, much more must it be so with Psychology.

flashed forth in a moment. Could these not be studied after the same fashion as the other physical sciences,—by observation of phenomena and by experiment? Instead of looking into our own thoughts and feelings, might it not be practicable to observe in others the action of the Mechanism of Man and by seeing how that Mechanism is moved and directed, learn from the actions of the Machine the nature and character of its moving and directing forces? It was thus that Magnetism and Electricity had been examined and a large knowledge obtained of the nature and characteristics of those imperceptible forces. This was obvious so soon as the prejudice of study by abstractions was lifted from the mind. At once the pursuit of Psychology and Mental Philosophy passed into a new region.

The course is clear now. The *Psychology of the Future will seek truth through facts.* For this purpose it will collect all facts connected with the action of the intelligent forces upon the human mechanism. It will do so by observation and by experiment. Upon the solid basis of *fact* alone will this science be permitted to rest for the future. Our science is defined to be "*the investigation of the Forces by which the Mechanism of Man is moved and directed.*" The restricted term *Mental* Science does not properly represent the area of the subject, for it implies more or less than that which it is the business of the student to ascertain. *Psychology* is a better term, for it leaves open the question if Mind and Soul are identical. Nevertheless, a neutral name is much needed that shall carry to no mind that hears it a foregone conclusion. The existence of a motive Force (or Forces) cannot be denied. The difference is as to their number and nature. A name that would convey no prepossessed idea and imply nothing more than the Forces that move Man and direct his motions intelligently would be the greatest boon that could now be conferred upon this the most important and interesting of all knowledge. The invention of such a name would mark the starting point from which

the Psychology of the Future will advance to the victories that are certainly in store for it.

If such a neutral name should occur to any reader, he will do good service by suggesting it to us. The Germans are using the term "*Pneumatology*" for the science of Soul. Mr. Tylor has invented the term "*Animism*" to express the doctrine of Soul as believed by almost the entire human race. In such case those who maintain the existence of Soul would be properly called ANIMISTS. What say the Psychologists to this?

CHAPTER II.

HOW TO BE PURSUED.

How is the Psychology of the future to be pursued?

By collecting facts and upon these facts to found a science.

What proof is requisite to establish a fact?

The rules of evidence in scientific inquiry do not differ much from those that control legal inquiry. The most prominent difference is, that hearsay is not rejected altogether by Science. It is a necessity of science that statements of fact shall be accepted on the report of competent and credible persons. But where the reporter cannot be produced, his statement requires to be examined with the utmost care and not to be admitted until it has been subjected to strict examination. Every part of the statement must be freely questioned, and whatever fails to endure the scrutiny that is the best substitute for a *vivâ voce* cross-examination should be rejected.

But rejection does not imply that it is *untrue*, only that it is *unproved*. It is necessary to note this distinction for in controversies on alleged scientific facts it is too often forgotten. There is a wide interval between proof and disproof. Failure to prove does not mean proof of falsity, although unreflecting minds are apt to think so. Proof that an asserted fact *is not* is as much a matter of evidence as proof that *it is*. If this proof is not produced the so-called fact is not *dis*proved but only *un*proved. There is another important rule of evidence, "that the burden of proof is

upon him who affirms." The person who asserts a fact must prove it—the objector cannot be called upon to disprove it. But if any proof of the assertion be advanced, the duty is then cast upon the objector to answer that proof, showing its invalidity by the production of other conflicting facts.

But all scientific investigation must be proved with reference to CONDITIONS. This is a universal law. Whatever is exists under conditions. Whatever we do is done under conditions. We cannot lift the hand to the head but in strict accordance with the conditions that determine the action of the muscles. The first business of the Scientist, when experimenting on any subject whatever, is to learn the conditions under which it exists and in accordance with which alone can any change be made in it. Nature is in this an absolute despot. She dictates her own conditions. Science is her slave and can dictate to her no conditions whatever.

The investigation of psychological phenomena, equally with that of physical phenomena, demands as its first step that we ascertain the conditions requisite to their production. The first care of the Physicist about to investigate electrical phenomena is to see that the conditions are strictly observed which experience has shown to be necessary to the production of those phenomena; such as that the atmosphere of the room is not damp; that there is no moisture upon his glass; that the apparatus is perfectly insulated, and many others. Even with all precautions in the observance of these conditions, his experiments often fail from the presence of some opposing conditions that are imperceptible to him, or from the absence of some one or more of the various lesser conditions which are needful to the success of the experiment. What visitor at the lectures of the Royal Institution has not often heard Professor TYNDALL, potent master as he is over the imperceptible force we call electricity, on the failure of some experiment say to his audience, "I tried it five minutes before the lecture began and it succeeded perfectly. It fails

now for some reason I do not know. Some unknown condition has not been observed. We cannot control Nature."

As it is with all other scientific investigation, so it is with investigation in Psychology — but even more emphatically, inasmuch as the conditions are more difficult to ascertain and because they are continually varying. The Physicist deals with dead matter that is subject wholly to his will. The conditions under which it exists and is offered to his investigations are unchanging. He is thwarted by no caprices, baffled by no intelligence. He can deal with it at his pleasure, try with it any experiment, apply to it any test, handle it, carve it, dissolve it at his pleasure without complaint or resistance.

The study of the facts and phenomena of Psychology cannot be so pursued, for the subjects of Psychological Science have consciousness, sensations, emotions, intelligence and a *will*. These are conditions to be taken into account by the observer and the experimentalist. The same evidence that suffices for proof in the investigation of Physical Science is insufficient in the investigation of Psychological Science. Its subjects cannot be carved by the scalpel, dissolved in a test tube or sublimated in the crucible. They can neither be rarefied into a gas nor compressed into a metal. So far from submission to the desire of the experimentalist, their inclination is to rebel against his authority, as if to prove their own intelligence and independence by thwarting his. These are conditions to be provided for and which, if not anticipated, will assuredly lead to disappointment.

But when this special feature of Psychological research is thoroughly comprehended and the Student goes to the work, not only with knowledge of the fact but with a deliberate resolve never to suffer it to escape from his mind, but always to make full allowance for it in all his observations and experiments, it will be found to offer some compensating advantages. The *Intelligence* he is investigating, if it can sometimes thwart, can also often to some extent assist him. It

can adapt itself to the necessary conditions and even explain to him how they operate to the end.

The ignorant and inconsiderate ignore this universal Natural Law, that nothing is or can be but *according to conditions*. They argue thus in relation to an asserted fact: "If *this* be done, why cannot *that* be done?" They would have said, and probably did say, when the power of the magnet was first discovered: "If this thing can attract the needle at a distance of an inch, it can do so at the distance of a foot or a yard. If it can draw iron, much more should it draw a feather which is so much lighter. That it cannot do this at any time and at any place proves that the asserted power of the magnet is a lie and a fraud; that the motion is merely a conjuring trick, a delusion or an illusion, the operator a rogue, the spectators fools." The obvious answer is, that the magnet exercises this power only under certain conditions; that these conditions are as yet but imperfectly known and the reasons for them still less known. When research shall have traced them to their sources we shall certainly find there the same law and order that we have found in all the other facts in nature whose conditions we have succeeded in tracing and which, now that we know them, we have ceased to esteem as marvels. Science itself is a long history of superstitions converted into facts and seeming miracles made familiar.

CHAPTER III.

OBJECTIONS AND OBJECTORS.

THE reader is already informed that the Materialists take a very definite position. They assert (1) that there is no cognizable existence but molecular structure, which alone is perceptible to the human senses, or, if there be, it is unknown and unknowable. (2.) That the material organism, rightly investigated, will sufficiently account for all the phenomena called mental or psychical. (3.) That Psychology is consequently a pseudo-science, having no basis in fact and therefore no subject matter upon which to employ itself. (4.) That therefore it can be nothing more than a conjectural and fanciful exercise of ingenuity. (5.) That some of the alleged phenomena can be explained consistently with the materialist theory of molecular structure of mind as well as body, that whatever this theory cannot explain is inherently impossible and may be at once pronounced a delusion or an imposture, and that no amount of evidence to the contrary, however cogent, however apparently conclusive, can be accepted against the *à priori* argument that, according to the accepted doctrines of physical science, the asserted facts *cannot* be.

Where men begin by asserting that C cannot be because it is inconsistent with D, which is affirmed to be absolutely true, it is a vain task to attempt an argument. If they choose to forget that every new fact throughout the entire history of science has been received in the like manner and if they will not see the obvious answer, that their asserted theory may be wrong, or the new fact may be found on further examination to

fit into the scheme of nature, the best course is to leave them to the certain discomfiture that time brings.

The answer that Psychology makes to these arguments of Materialism is

(1.) That doubtless there are in creation many other combinations of atoms than the special combination which forms molecules, and consequently that there must be multitudes of existing things which, not being of molecular construction, are therefore imperceptible to the human senses. These non-molecular entities are not unknown or unknowable because they are imperceptible, but their existence and some of their qualities may be learned from their action upon the molecular structure that is perceptible.

(2.) That the structure of the material organism will not explain many of its most familiar actions, such, for instance, as consciousness, will, ideas, reasoning, imagination, memory—in fact none of the phenomena of *intelligence.*

(3.) Therefore, that Psychology is neither a conjectural nor a fanciful science; that it has a definite basis in the forces that intelligently move and direct the mechanism of man and a distinct subject matter in the facts and phenomena that are exhibited by the action of these imperceptible forces upon the material structure that is perceptible.

(4.) That Psychology demands the same exercise of the faculties of observation and reflection as do the other sciences and can produce as many proved facts, supported by equally admissible and conclusive evidence, as are to be found in any of those sciences.

(5.) Psychology, also, boldly raises what the Lawyers call "the general issue" and asserts that upon questions of *fact,* to be ascertained by observation and experiment, the argument *à priori* is unphilosophical, irrational, and wholly inadmissible, and that it is and must ever be, as ever it has been, an obstacle to the progress of knowledge. It is based upon an assumption of infallibility. The mental process of its propounders is after

this fashion. "This alleged new fact is inconsistent with another fact which I believe to be true, or with a theory which I deem to be indisputable, and therefore it cannot be a fact. I have no need to inquire further." The fallacy, of course, lies in the assumption that the knowledge we possess already is absolutely correct and complete or that the theory we hold is beyond possible question. The answer which true science makes to the Scientists who so argue is short and simple. "Either the facts hitherto supposed to be real are not real, or the theory based upon them is insufficient. Or if the new fact be found, it may not show itself on close examination to be inconsistent either with the old fact or the old theory." Nevertheless the employment of that specious *à priori* argument, so loved by Scientists, has done more at all times and in all countries to impede the march of Science than have the combined forces of theological dogmatism and popular ignorance.

Let the student of Psychology begin with a resolve to banish this fallacy. But he will need continual vigilance to resist its insidious approaches in his own mind and courage to reject it instantly and boldly when wielded against him by others.

No less to be avoided is the evil influence of another formidable foe to research—*consideration of consequences*. The inquiry into nature and science has nothing to do with consequences. There is for the honest man but one thought—*is it a fact? A fact will always take care of itself*. A fact is sure to find a fit place in the world of knowledge and to square with all other facts. Remember, that a fact does not exist at your will nor at that of any other man. No power on earth can bid it *not to be*. No persecution nor prosecution can put it down. You cannot extinguish it by shutting your eyes. Welcome or unwelcome, there it is and there it will be with all its consequences, whether you do or do not choose to recognise it. You may object to a theory or a speculation by reference to consequences. You may answer it by forms of logic. But the existence of a *fact*

is always a question for investigation, to be determined by *evidence* alone. The assertion of it by credible witnesses cannot be answered by an argument, but only by trial and experiment under strict tests applicable to the nature of the fact to be proved or disproved.

NOTE.—That the extraordinary dogmatism exhibited by modern scientists has not been unduly censured here is shown by the following passage in the *Quarterly Review* for January, 1878:

"A dogmatic habit of mind was till lately the special reproach of the theologians. It is a fault of which they have had occasion bitterly to repent, and their temper at the present time is apt to be only too apologetic and cautious. But the dogmatic energy which has thus disappeared from their minds seems to have been transferred—perhaps by some application of the law of conservation of force—to the minds of men of science, and Professor VIRCHOV has to address to his brother professors a rebuke which a generation ago would have been deemed appropriate only to hot-headed divines."

CHAPTER IV.

PRECAUTIONS IN RESEARCH.

PSYCHOLOGICAL research is pursued, as is Physical research, by *observation* and by *experiment*.

It may be thought, perhaps, that Psychology has a far more limited field for research than any other of the Physical Sciences. It is restricted to the action of one piece of Mechanism,—MAN. Its province is to investigate the forces that *move* and *direct* that mechanism.

But in fact the field for observation and experiment is very large. The chemist analyses some substance and with labour and skill ascertains its structure and properties. This done, his work is so far accomplished and he and all others know that every like substance will be identical in structure and qualities, must be treated in precisely the same manner and will permit of being so treated.

But although the mechanism of man is the same everywhere, the structure which it is the province of Psychology to investigate differs more or less in all Men. Knowledge of one is not necessarily knowledge of another. Why? Because the forces that direct the motions of the mechanism are *intelligent* forces, or (which is in effect the same) the Agent directing the forces from within the mechanism possesses intelligence and has a controlling *Will* and an individual consciousness. The Psychologist must observe the psychic phenomena as they are exhibited, not merely by one man at one time, but by the same man at other times and in other men in divers

conditions, of youth and age, of health and sickness, in many moods of mind, under a variety of abnormal as well as normal conditions. This it is that makes the Science of Psychology so large. The facts upon which it is to be founded are manifold and the gathering of them will be work for generations of students. Instead of three or four volumes, which hitherto have sufficed for the metaphysical form of Psychology, the application to it of the method of research by observation and experiment, that has been adopted in all other Sciences, will demand the services of a multitude of observers and the labours of many experimentalists by whom materials will be supplied for the *thinkers* to mould into a science.

Facts form the foundation of all true physical Science. A Science can be firmly erected only upon a foundation of *fact*. Argument may serve to indicate the pathway to discovery by showing where success is probable or improbable. But no new *fact* was ever yet found argumentatively. Indeed it may be well questioned if the tendency to substitute logic for research has not been more a hindrance than a help to Science. We know that it was not until Scientists had emancipated themselves from the thraldom of the Logicians that Science began to make way. Psychological Science, almost to our own time, has been strangled by the embraces of the Metaphysicians. The argument *à priori* has been above all mischievous, for it has been at all times and everywhere a potent weapon in the hands of the cunning to impose upon the unthinking their own conceptions of truth. It is practically a bar to inquiry and has ever been employed by those who use it for the suppression of anything they dread as endangering their own theories. Wherever the argument *à priori* is permitted progress is impossible.

And when this term "argument *à priori*" is here employed, it is intended to designate the process of contending that something is not and cannot be because it is in apparent contradiction to some other thing which the employer of the argument assumes to be true. A

striking illustration of it would be if a man who had never seen or heard of magnetic attraction were to contend that the steel could not possibly jump to the magnet because it was contrary to the law of gravitation that a heavy body should rise in the air without something attached to it to pull it up; therefore that it must be either a delusion or an imposture and that even if seen it was not to be believed. This is the argument *à priori* and doubtless it was wielded by the men of old to prove the magnet an impostor. But we know now that such reasoning was fallacious, because we have learned that the magnet exercises an imperceptible force that overcomes the force of gravitation, although we are still wholly ignorant what that force is, by what process it is exercised, or what it is that seizes and drags the steel upwards. Nevertheless this foolish form of argument continues to be employed even by Scientists in our own time. Scarcely a new fact or new discovery is announced but a hundred pens who call themselves scientific are ready to demonstrate that it *cannot* be because it contradicts some supposed established truth and the asserter of it is unceremoniously called, in plain terms or by implication, a deluded fool or a deluding knave. The discovery of the circulation of the blood was thus assailed and made its way but slowly against the batteries of *à priori* argument.

In preparing to enter upon Psychological research, you should begin, as when undertaking to investigate the facts of any other science, by banishing from your mind everything in the shape of *à priori* argument that you may have heard from others or that may be suggested by yourself.

Then make a strong effort to banish all *prepossessions*. Dr. CARPENTER has forcibly described this source of error in the remarkable paper in the *Fortnightly Review* in which, disputing the authenticity of the miracles related in the Bible, he refers to the influence of prepossession as the most potent source of self-delusion. The suggestion is not new, but it has been by him presented with

more prominence and force than by any other writer. Its influence is so immense, its effect upon the value of evidence is so great and the results are so important, that it will be desirable to direct the particular attention of the reader to the special chapter treating of it which will follow this one.

Banishing prepossessions so far as you can, you must resolve, in the emphatic language of the oath taken by a witness in our Courts of Law, to *seek* "the truth, the whole truth and nothing but the truth." You must not cast about to see what it may portend, nor if it squares or conflicts with any other truth or assumed truth, nor anticipate any consequences from its discovery or proclamation. You are bound by the law of honour Science professes, but not always practises, honestly to find *the very fact* according to your best skill and judgment and to proclaim the fact, when found, without asking who or what it may offend, without favour and without fear.

Perhaps you will ask what is *a fact?* You will be reminded that there are many "false facts" in the world and how are you to know a fact when you have it? "What is truth?" has been a problem of all time. But a fallacy is wrapt up in the question. A "*fact*" and a "*truth*" are not identical. A fact is something that is or has been; a truth is a deduction from facts or assumed facts. Both fact and truth can be to us nothing more than *relative*. We can only take facts as they appear and truths that are such relatively to ourselves. The ultimate fact and the abstract truth are not and never can be attainable by us. We can know nothing but according to the conditions of our own bodily and mental structure. Our senses limit our perceptions. Our minds limit our conceptions. We do not and we cannot certainly know if anything *is* as it appears to us to be, or as in our thoughts we conceive it to be. For all the practical purposes of life we must assume that things are as they appear; that there is an external world of which we can acquire some knowledge.

We must cease once and for ever to waste time and thought upon problems that are insoluble and upon speculations that cannot be proved. We must be content to accept as knowledge whatever can be taught us by our senses and by our reason and seek to know no more.

But we must also recognise the fact that the senses are fallible and the mind subject to illusion. Hence we must not be content with a single observation or experiment. Before a new fact is asserted, it should be witnessed many times, under stringent tests and various conditions. Very little experience in Psychological as in other research will satisfy the student of the value of this precaution.

For, from the nature of its subject-matter, dealing as it does with a thing having consciousness and intelligence, it is peculiarly liable to present appearances that are unreal and phenomena that are deceptive. Simulation is impossible with inert inorganic matter. Whatever aspect it presents is real. But with an *intelligent* entity there is always the possibility of simulation and against this precautions cannot be too carefully observed.

Another precaution. Let every investigation be undertaken with a firm resolve to throw aside, for the moment at least, any previous theory you may have held and to which the phenomena you are viewing may be supposed to have some relationship. There is no more frequent cause of error in observation than the strong tendency of the mind to see with microscopic eye the facts that seem to support any cherished theory and to be blind to the plainest facts that tell against it. The greatest Scientists are not free from this disturbance and every Science has felt its fatal influence. Care must be taken to view and record only the naked fact. Let not the mind stray into the region of inferences or conjectures as to causes, for these are sure to colour the view or disturb the object. An observer, when investigating a fact, has nothing to do with theories or inferences. His single business is to ascertain if it be

a fact. No matter to what inconvenient or strange conclusions it may appear to point, that is no concern of his. No wish of his, indeed, no power on earth can change it in the least, nor make it not to be. For good or for evil *it is,* and ever will be, let authority say or do what it will or the whole world combine against it. Theories and faiths may be extinguished by opposition or persecution. *A fact is immortal.*

Banish sternly from your own mind and reject, when asserted by others, the notion that a fact connot be accepted unless at the same time its existence can be explained. No fallacy has been more fatal to the progress of knowledge than this. The question, "*How* can it be? must be treated not merely as a folly but as an impertinence. The one question for the honest truth-seeker is—"*Is it?*"

Again, reports of scientific observations and experiments may be ranged under two obvious divisions. (1) Those which the writer reports from his own knowledge. (2) Those which he reports upon the statements of another. The first alone is recognised by the law as admissible evidence; it rejects the second as being "hearsay." But science cannot draw so stringent a line as the law has done. The law provides machinery for the cross-examination of witnesses and by that process sifts truth from error, fact from fancy. Rarely does such an opportunity offer for testing the veracity or accuracy of witnesses who report scientific facts and therefore these must always be taken with some allowance for liability to error through the influence of prepossession and the natural fallibility of the senses.

The writer who treats of scientific subjects on the plan of basing argument on facts is always subject to a cross-fire of objections which it is as well to anticipate. If he cites the evidence of others, he is charged with resting his case upou hearsay. If he reports his own experiments, their value is disputed because they are not certified by others. "Did you see this yourself?" says the doubter. "No." "Then I cannot accept what somebody has told

you." If your answer is, "Yes, I did," the ready remark is "But you may be mistaken. I cannot accept on the evidence of one witness only."

It is, of course, useless by any facts or any arguments to endeavour to convince those who are not willing to be convinced. Prepossession still is, as ever it has been, the most formidable foe to knowledge. Whatever we wish to be true is accepted on the merest shadow of proof. Whatever we do not wish to be true is summarily rejected, be the evidence ever so cogent. He only can see facts as they are who seeks for them without prejudice, without fear and without favour—looking for the truth alone, the whole truth and nothing but the truth.

It is in this spirit of regard for nothing but the *very truth* that so many of the facts and phenomena reported in the following pages were observed and have been recorded.

The *precautions* actually taken by the skilled reporters of these experiments may be stated once for all, to avoid the tedious repetition of them in the reports of the experiment. They will apply to all, unless otherwise specially noted.

All reasonable and practicable tests were always used. By *reasonable* tests are intended such as are consistent with the character of the phenomenon under observation and the asserted or supposed manner of its production. For instance, it would be unreasonable to impose upon a chemical experiment the introduction of an element that would neutralize the chemicals with which the experimentalist proposed to work. Equally would it be unreasonable to impose on Professor TYNDALL the condition that his electrical experiments should be conducted in a moist atmosphere. In like manner, with Psychological experiments it is necessary to consult the nature of the subject matter with which they deal and to adapt the conditions of the experiment to the reasonable requirements of that subject. In all scientific research the first and most important business is to

ascertain the actual conditions under which phenomena can or cannot occur and then to mould the experiments accordingly.

The experiments being conducted with an intelligent entity having consciousness, will and emotions, due allowance was made for the presence of these elements. Researches that fail to take account of them will certainly be vain or worthless. But the recognition of this necessity imposes upon us the greater care in observation and demands from us more frequent and protracted trial and test.

The first step in the experiments conducted by the Scientists who have pursued these investigations was to observe without tests, taking careful note of whatever they witnessed. Having seen what was presented untrammelled, they were better enabled to devise tests applicable to each phenomenon. This rule cannot be too strongly urged upon all investigators of mental phenomena. Do not be in too great haste to apply crucial tests. Be sure that you have accurately observed the entire case before you interfere to interrupt its full development.

Having thus observed without tests, ingenuity was exhausted in devising various crucial tests to meet the various difficulties and the special circumstances of each case under examination. If the required conditions were such as to favour fraud, the tests were increased in stringency to meet that special requirement. If darkness was demanded, it was deemed to be no sufficient reason for rejecting whatever is so produced, or Photography would not now be an art as well as a science. But such a condition was properly held to call for multiplied precautions and special tests that would preclude the possibility of fraud. So tested, such experiments are as admissible in evidence as any others.

Nor were they content with one trial. Before anything was accepted as proved, the experiment was tried over and over again with various persons, in various places, and under various conditions. Note was taken of failures equally with successes, and inquiry was always

made into the causes of failures, which are often even more instructive than successes.

Such were the precautions observed by the eminent Scientists whom it was my good fortune to assist in the experimental investigation of many of the various mental and psychological phenomena reported in the following pages.

CHAPTER V.

PREPOSSESSION AND DOMINANT IDEA.

In the very able essay, contributed to the *Fortnightly Review*, in which he undertakes to refute the miracles recorded in the Bible, Dr. Carpenter describes with great force the delusive influence upon the most powerful minds of what he well terms *Prepossession and Dominant Idea*. His acquaintance is mainly with their effect upon Scientists engaged in the pursuit of scientific truth. My own experience of their presence in judicial inquiry entirely confirms the observation of Dr. Carpenter. I have therefore deemed it desirable to devote a distinct chapter to the consideration of an influence so disturbing and distorting, that daily forces itself upon my attention.

I have had occasion to repeat more than once the admirable saying of Pascal that "men do not believe what is true but what they wish to be true." If desire moulds belief much more does it colour the evidence upon which belief is based. All of us are prone to see things, not as they are, but as we *wish* them to be or think they *ought* to be. If we come to an inquiry with a prepossession or a dominant idea of any kind, we are sure to open our eyes widely to the smallest fact that tells in favour of our prepossession and close them to the plainest facts that tell the other way. The entire result of investigation into any matter depends upon the spirit with which we go to it. If we are prepossessed in its favour and so desire to prove this or that to be true, the evidence will shape itself to our minds in accord with that desire. If prepossessed against it, the self-same

evidence will satisfy us that it is not true. Present precisely the same facts to two minds equally competent to judge and equally *prepossessed* in opposite directions and the same fact will appear to each mind under quite a different aspect. Each will see the force of so much of it only as confirms his prepossession. Hence come the opposing conclusions which men of equal ability deduce from the same facts.

An honest and true judgment can be formed by that Mind only which proceeds to investigation in the *judicial* spirit, banishing all prepossession and going to the work, not to prove this to be true or that to be false, but abjuring all foregone conclusions, with stern resolve to learn what the very truth is. Thus and only thus can the *truth* be learned.

But such a spirit of impartial inquiry is very rare. Few minds are capable of it. It is seldom found in the witness-box among the general public. Witnesses are commonly biassed by partizanship for the side on which they are called, even if they have no personal interest in the issue. Strange to say and sad as strange, this distorting influence of prepossession prevails more powerfully with scientific witnesses than with almost any others. Judges and practising Lawyers are taught by experience that of all witnesses Experts are the most unreliable and of all Experts the most untrustworthy are Scientists. Wherefore so? It is *not* the result of dishonesty, as is commonly supposed. They are not consciously untruthful. The fact is, *prepossession* is so powerful with them that it perverts their judgments and even perverts their senses. It is not true, as is said, that for a sufficient fee they will prove one thing and for double that fee prove the opposite thing. They are, indeed, often seen to prove anything that is wanted to be proved. But it is not the fee that buys them. It is the *prepossession* with which they go to their task that really biasses their senses and their judgments. They illustrate precisely the above remark, that men will see what they wish to see and will not see what they do not wish to see. This ever has

been and ever will be the result if we go to an inquiry with purpose to prove something to be true or not to be true, instead of impartially seeking *what is true?*

This is precisely what the Scientists are expected to do when they are retained as witnesses. They are not called to discover what the truth is but to prove that certain things are true. With this *prepossession* they proceed to the examination of the facts and the deduction of conclusions from those facts. As the certain consequence they view the facts and arguments from one aspect only. Hence the painful exhibition, so frequent in our Courts of Justice, of the evidence of Experts biassed unconsciously by the interests of the party for which they are called. Every experienced Solicitor knows that any amount of scientific evidence can be easily obtained to support any side of any question, alike to prove or to disprove. In railway accidents, half a dozen medical men can be brought to swear that in their judgment the injured person will never be himself again; an equal number to swear that there is nothing the matter with him. Scientific Surveyors will prove with equal facility a scheme to be possible or impossible. According to one set of "mad doctors," (as they are familiarly called, for lack of a better name), no man is sane. According to another no aberration amounts to insanity. It is the same in patent questions. The fact is found in all legal inquiries where there are opposing interests and the opinions of Scientists are invoked. Are then all Scientists dishonest, that they prove whatever they are paid to prove? Is it because they are paid largely that they are the least reliable of all witnesses when retained by the parties, as is the unwise practice in England, instead of being called as advisers of the Court, as is the practice in France? No. The truth is that they are under the influence of *prepossession.* They look at the case submitted to them, not to ascertain the very fact, but to maintain a foregone conclusion. Hence they have a keen eye for all facts and arguments that support their proposition, accepting them with the

smallest scrutiny, and are blind (unconsciously) to the facts and arguments that point in another direction.

This experience of the influence of prepossession over the eyes and judgments of Scientists, when witnesses in our Courts, illustrates the necessity for extreme caution against the like prepossession by the Psychologist in the conduct of *his* researches. He must have no preformed desire that this or that should be true or false. He must go to his inquiries resolved to seek what is true and not with a purpose to prove this or that to be true or false. In brief, he must be the Judge and not the Advocate. This *judicial* condition of mind is somewhat rare, for it is difficult to acquire and still more difficult to preserve. Experience has proved it to be rarest among Scientists who, from the nature of their studies, are prepossessed by a large body of assumed facts and theories by which they are wont to measure all newly asserted facts. This is the mental cause of that almost unbroken series of denials of new facts which has been the shame of Science and still, in spite of experience, continues to be its reproach. Not one of the great facts which Science now accepts as incontrovertible truths but was vehemently denied by the Scientists of its time, declared to be *à priori* impossible, its discoverers and supporters denounced as fools or charlatans and even investigation of it refused as being a waste of time and thought.

The causes of this are clear. Scientists, like other men, rarely examine with strictly impartial eyes and minds, with purpose to learn what the truth is and which they can only learn by looking all round. They make search for that alone which serves to support their previous views. They have the keenest eye for anything that aids that object. They are deaf and blind to whatever tells against it. They draw the most dim and distant conclusions that favour their impressions. The most obvious adverse conclusions are passed over or set aside. The most improbable suggestions are readily accepted when they confirm a prepossession. The most impos-

sible explanations of antagonistic facts are eagerly welcomed. This weakness of our common humanity is only more notable and lamentable in Scientists than in others because it is in them the least to be looked for, their profession being pre-eminently to seek after the truth and therefore the world is the more amazed and vexed to find how their practice belies their profession. The fact is that Scientists, who should be the most free from prejudice and prepossession, with rare exceptions, at all times and in all countries, so far from having their minds open to the search after and reception of truth generally, have ever been and still are, more under their influence than almost any other men. Indeed, the history of science has been a continuous narrative of facts denied and truths denounced. Every new discovery has been combatted in turn, the discoverer denounced as a rogue and the assertors of it as fools and dupes. Religious and social prejudices have been invoked against it and persecution instead of praise has been its lot.

I repeat, that such witnesses are not consciously dishonest. They are only under the influence of that *prepossession* which Dr. CARPENTER has so ably described as the prevailing cause of error in scientific investigation and of which no more apt illustration could be found than himself, in whom prepossessions are so potent and whose mind is the slave of dominant ideas. The practical effect of prepossession with him has been to convert into an able advocate, powerful to support one side of a question, a Man of Science, whose proper duty it is to be a Judge, viewing and weighing the facts on *all* sides.

When such minds are subject to be so affected, it will not be a misplaced warning to the Student of Psychological Science to keep ever before him his great liability to this influence of *prepossession* and *dominant idea*. Let him to the utmost of his power strive to keep himself free from that besetting sin. The golden rule to be written on his memory and kept always before him in all investigations is to ask, as an upright Judge, *what*

the truth is? Never, like the skilful advocate, should go to them with purpose to *prove* this or that to be true or false. The lesson is hard to learn. But let him keep the danger steadily in view. On the threshold of any of your experiments, ask yourself again and again, "Am I honestly looking for the fact, or am I really seeking to find something to be true that I wish or believe to be true or something to be false that I desire and expect to find false?" If this baneful influence of *prepossession* had been as distinctly and powerfully brought under the notice of his brother Scientists by Dr. CARPENTER many years ago, as it has now been preached to them, Science would have been at this time a century in advance of its present stage. If the Scientists of our day will give good heed to the warning they have received, Science will assuredly progress hereafter with a speed it has never before known.

CHAPTER VI.

HOW WE KNOW.

HUMAN knowledge can be *relative* only — that is, according to the conditions of our earth life. We are structured in a special manner for existence in a world of a certain structure. We know and can know nothing more than is permitted by the conditions of that existence. Whether what seems *is*, whether that which presents itself to us as reality and truth is actually and absolutely such, as we cannot learn we need not trouble ourselves to inquire. We must be content to accept for knowledge that which we are constructed to know and happily that is sufficient for all practical purposes.

Positive knowledge of the external world comes to us only through the senses. Consciousness gives us knowledge of our own existence and emotions. If we could imagine a man cut off from all communication with the external world through his senses—a mind without nerves—it is doubtful whether that mind could have any sensations or any knowledge beyond the mere consciousness of being.

Our knowledge of facts outside ourselves can come to us through the senses only. Have we knowledge of anything not so brought? The office of reason is said to be to enable us from facts known to arrive at facts not known, without further assistance from the senses. This, however, is open to grave question. Reason can do no more than lead us to conjectures, more or less probable. It can merely point the way for inquiry—and we cannot affirm that the fact is known until it is proved by some evidence of the senses. The pure mathematics may, perhaps, be

deemed an exception to this assertion. But the question is too large to be treated here. For the present purpose it suffices that *evidence* of facts can be obtained only through the senses.

But Science does not require that knowledge should be procured only through our own senses. The necessities of our limited lives compel us to accept the evidence of the senses of others.

The sources of all knowledge are two only: 1. The information of our senses; 2. The evidence of the senses of other persons.

But both of these sources of knowledge are subject to serious errors alike of the senses that receive and convey the impressions and of the mind that accepts them.

The evidence of others is subject to the same errors and to the further error in the reporting of the facts observed, either through accident or by design, and this liability is multiplied with every successive reporter. The accuracy of our information and therefore of our knowledge depends upon the fullness of our appreciation of these multiplied sources of error and the precautions taken to guard against them.

It will suffice to name the principal of these fallacies.

(1.) The senses are themselves subject to deception, but more often the mind imposes upon the sense by the influence of prepossession, already treated of. Few persons are at all conscious of the extent to which the senses are affected by the mind. This is especially to be noted with objects familiar to us. We think we see with our eyes when in truth we only see with our minds. A remarkable instance of this occurred to myself. My sitting-room window looks upon a field. At the house of a friend, something was said about a large tree in that field visible from that window. I confidently asserted that there was no such tree and two of my family present supported me. My friend had been but once in the room, but he was equally positive as to his impression. On looking from the window we found that we, who had been viewing that very tree for twenty years,

were wrong and my friend, who had looked upon it for five minutes only, was right. In fact we had seen with our *minds*, he with his *eyes* only. Probably there are few who could not recall instances of almost equally signal deceptions of the senses. To the judicial experience such cases are daily, almost hourly, presented.

(2.) Where facts are be received on the evidence of others we have to add to the sources of fallacy as affecting ourselves the further risk of an imperfect report either through the failure of the reporter's mind to comprehend or of his tongue to describe. There is also the possibility of misrepresentation through the same besetting sin of prepossession or by deliberate suppression or falsification of the facts from the bias of interest, or fear, or favour. All of these sources of error must be eliminated or nullified before a reported fact can be accepted as a fact and treated as a positive addition to the sum of knowledge.

How, then, do we arrive at a knowledge of *Truth*?

By Evidence.

So we learn what is false—by Evidence.

All knowledge consists of (1) *Facts* and (2) *Deductions* from facts.

Deductions from facts are the general rules, or principles, which by a mental operation called *reasoning* we deduce from contemplating two or more facts together and discovering relationships between them.

If a certain state of facts is seen always to follow a certain other state of facts, we think and speak of them as bearing to each other the relationship of cause and effect.

We are accustomed to think that the one in some manner produces the other and that where the one is found the other, under precisely the same conditions, will invariably follow.

But this is a fallacy. Really we have no other knowledge of cause and effect than sequence. So far as we know, B follows A. But we do not and cannot know

if it has always done so, or if it will continue to do so. There is at the best only a strong probability that what has been will be.

It is very important, in the pursuit of truth, to understand distinctly the proper province of reasoning, for it is greatly misunderstood and much abused.

Facts form the only firm foundation of *Truth*. No truth can be established by argument alone, save when we take facts for the basis and reason upon them. But the results of such reasoning amount only to a strong presumption, until confirmed by other facts. The existence or non-existence of a fact cannot be tried by argument alone. It is no answer to a *fact* to assert, nor even to prove by the most perfect logic, that it *cannot* be. A fact can be proved or disproved *only* by observation, experiment and test.

The province of reason and argument is to ascertain that due observation is made, proper experiments tried, and sufficient tests applied. Argument is usefully employed also in trying the validity and weight of the evidence by which an asserted fact is supported and in discovering what other probable facts may be deduced or presumed from the proved fact.

It is in the training of the legal mind to a habit of looking for *facts* and recognizing the sufficiency of the *evidence* by which any fact is proved, that the aptitude of the skilled and experienced lawyer for the discovery of truth is so remarkably shown.

It is to the entire neglect of impartiality in the search after and ascertainment of facts and its entire ignorance of what is or is not evidence of a fact, that the singular *in*capacity of the lay mind for the pursuit of truth is to be attributed.

No greater service could be rendered to society than to teach the youth of both sexes what is the nature of the *evidence* by which asserted *fact* is to be proved or rejected. The mind should not be taught this as an accomplishment merely, to be cultivated or neglected at pleasure. The mental powers should be directed to the

practice of weighing evidence until it becomes almost an instinctive manner of thinking. The minds of the young should be so imbued with the principles of evidence that they shall think habitually in obedience to them until it shall be an effort to think in any different manner.

CHAPTER VII.

SCIENTIFIC EVIDENCE.

I MUST repeat yet once again the profound saying of PASCAL, so often repeated in this little treatise, "Men do not believe what is true but what they wish to be true."

Wiser words were never written. Every day's experience confirms them. The rarest of all spectacles is a man who seeks after the Truth for its own sake alone, who desires to learn the *very* Truth, and who will suffer no personal nor social influences, no prejudices, no preconceptions, no desire for popularity nor dread of unpopularity, to stifle or disguise the fact in his own mind or prevent his assertion of it to the minds of others.

Of all pursuits, that of Science is pre-supposed to be the least obnoxious to this weakness of humanity. Science is, or ought to be, pre-eminently a seeking after the Truth, the whole Truth and only the Truth. Its aims are supposed to be purely unselfish. A Scientist is preconceived to have no vulgar prejudices to betray his senses or warp his judgment.

It is far otherwise in fact. "'Tis true, 'tis pity; pity 'tis, 'tis true." Scientists generally are the most dogmatical of men. None are more prone to condemn the dogmatism of Theologists and none assert more loudly and persistently their own dogmas. But Scientists lack the excuse of Theologians. Theology is from its nature determinate. Science is essentially progressive and the new knowledge of to-day is continually refuting the supposed knowledge of yesterday.

The reason is that Scientists are but men. They have the infirmities and the passions of men. A man's nature

is not changed because he gives time and thought to the exploration of the universe or of a drop of water, the examination of worlds or of beetles. With the common herd he has at the least his full share of vanity and self-esteem. He is subject to envy and jealousy. He thirsts for public applause and dreads public censure. He loves popularity; he shrinks from unpopularity. Having proclaimed a dogma, or identified himself with a theory, or pronounced an opinion, he wants the moral courage to confess himself in error. This is the *rationale* of the refusal of Scientists to believe what they do not wish to be true and their closing of the eyes to facts it is inconvenient to recognise.

But much of scientific, equally with popular, error arises from ignorance of what is *evidence* and what constitutes *proof*. If the principles by which these are directed were better understood and more widely recognised controversy would be reduced to much narrower limits, a vast amount of toil and time now wasted in unprofitable and interminable discussion would be saved on the threshold of inquiry into the phenomena of Mental Physiology and Psychology. It may be useful to the Student to be forearmed with some of the principal rules of Evidence that should guide him in the search after the Truth, if he be sincerely desirous to find it without fear or favour.

There is a popular notion that scientific Truth is to be pursued by some different method from other Truths. Not so. All *facts* are to be proved by the same process, the difference lies only in the amount of proof demanded. This varies in various circumstances according to the purpose for which the fact is required. For the ordinary purposes of everyday existence, we are compelled to accept as facts a multitude of things very imperfectly proved, and very much that is not proved to us at all, but which we take upon trust. We should perish from mental inanition if we demanded for every asserted unimportant fact the same amount of evidence as we require in matters of great moment. In such cases

Common Sense comes to our assistance and by an unconscious process the mind pronounces a judgment for which it could assign no reason but what is for the most part a correct one.

And what is *Common Sense?* Only the accumulated experience we have received from others and acquired for ourselves and perhaps also something derived by inheritance. *Common Sense* is of infinite value within its own proper province. It may be safely trusted in the affairs of social life for, although sometimes erring, its failures are but few compared with its successes and when it errs it usually supplies also the remedy for its error. Its worth will be best appreciated by calling to mind some acquaintance who is known as "wanting in common sense."

But its supremacy must be recognised only within its province and that province is the circle of everyday existence. When it trespasses beyond that limit and attempts to solve questions only to be tried and determined by the stricter rules of evidence it fails and misleads. The real business of *Common Sense* is not to pronounce what is true or false in the abstract, but only what, under all circumstances, it is most expedient to *treat* as true or false. Common Sense has pronounced many things to be because they seem to be, when they are in truth quite otherwise—as, for instance, that the sun rolled round the earth—and a multitude of other things now known to be scientifically false. But for all the practical purposes of life Common Sense is right. Only when it passed beyond its proper province into the observatory of the Astronomer and told him that its own unproved dictum was preferable to his proved science did Common Sense deserve the rebuke it received.

The investigation of Psychological as of other scientific phenomena lies *beyond* the province of Common Sense and that very useful assistant in common life cannot be admitted into it either as a witness or as a judge. We are inquiring here not what *appears* to be true but

what *is* true. In such an inquiry nothing can be accepted as true without *proof*. What constitutes proof is a question for the reason. So, also, is the question, what is admissible *evidence* by which that proof is to be attained.

Science is compounded of *facts* and *hypotheses* (which are explanations of facts always more or less conjectural and consequently more or less reliable). The value of inference from facts depends, first, upon the accuracy of the asserted facts and, secondly, upon the correctness of the inference.

Thus must all science be based upon *facts*. Ingenuity may exhaust itself in spinning ingenious theories; they will be but cobwebs unless they have facts for their foundation. Thus it is that the facts may be true but the theory false and the theory perfect in structure but failing in its facts. Inasmuch as it is a laborious process to ascertain facts and a pleasant process to weave theories, ingenuity has ever preferred to present more of theory than of fact. For centuries, indeed, science was sought almost wholly in abstractions. Long after Physical Science had emancipated itself from the region of hypothesis and taken to the solid world of *fact*, Mental Science and Psychology persisted in the ancient way and Metaphysics continued to be a barrier to their progress. Only in very recent days, within the memory of this generation, has Science condescended to apply to the investigation of Mind and Soul the same patient observation of facts and phenomena that had been long ago devoted to the action of the physical forces and the phases of molecular structure.

Facts, then, being the foundation of all Science and of none more emphatically than the Science hitherto deemed metaphysical, namely, the Science of Mind and the Science of the Soul (or Pneumatology), to which this treatise is devoted, what are the rules by which the Student should be guided in the gathering of such *facts?*

It has been said, truly enough, that there are in the world more false facts than false theories. But are there not a million of facts to one theory? The saying

applies rather to common life, where facts are for the most part taken without test, than to the world of Science where facts are usually subjected to severe examination.

The first rule to be observed by the honest student of any Science is to *ascertain the very truth and fact*, without prejudice or prepossession, without favour or fear, with no foregone conclusions, with no shrinking from it because it seems to be in contradiction to some accepted theory or in conflict with some other assumed fact. Never must he ask the how, or the why, what it means, what it disturbs or threatens, however dear and cherished. But one question is permissible to the honest inquirer, "IS IT A FACT?"

Of this he may rest assured, that if it be a fact it will be strange and portentous to him only because it is new and that on further investigation it will be found to square with every other fact and to be in perfect harmony with all other knowledge. There is no inconsistency in nature.

The real rule to be remembered is "*to require the best proof that the nature of the case will permit.*"

This is one of the primary rules of the Law of Evidence which reason would recommend in all cases. It is especially needful in scientific inquiry and most of all in the branch of Science under consideration here. This is its meaning. You are not to be satisfied with inferior evidence if better evidence is procurable. Reference is not now made to the rule of Law that excludes what is called *secondary* evidence, meaning that what a witness has written shall not be produced if the witness can himself be called (which would be a very wholesome rule for Scientific evidence also), but that evidence of inferior value shall be rejected if better evidence could be obtained.

A third rule for scientific research has been advanced by some because it is a peremptory rule of the law, "that hearsay is not evidence." But in science this rule must be taken with so many exceptions as to render it almost worthless. It would be impossible to adopt it

in its integrity. No man could personally ascertain all the facts of any science. He must be dependent for the greater portion of his store of facts upon what the law calls "hearsay," that is to say, statements of what other persons have said. All that the student can do is to go to the best authority and when receiving the facts from this source carefully to sever fact from theory and add the fact to his store uncoloured by any hypothesis it may have been made to fit. But in trying the worth of any asserted fact he may usefully employ the rule excluding hearsay. He may question the authority how *he* obtained it, if it was the product of his own observation or merely something that he had received on the faith of others; for if any asserted fact has been transmitted through three or four reporters and the original authority cannot be found the rule that hearsay is not evidence will apply with increasing force for every transmission. The student, accepting a fact upon authority, should be content with nothing less than the original authority or the voucher of one who has tried and proved the original authority.

Having, with the application of these simple rules, accumulated a multitude of facts, then and not till then may they be marshalled with purpose to see what other facts may be deduced from these; what indications they give of the presence of some forces not perceptible to the senses; what operations of natural law they appear to exhibit; what suggestions they make to the mind reflecting upon them.

But such inferences must always be taken with the most perfect recognition that they are only theories and conjectures more or less ingenious. They may be true, but they may be erroneous and can at best be accepted only as guesses at truth, to be used chiefly as guides in further investigation.

But always you will have this consolation, that although your theory may perish *the facts* will remain. A *fact* is inextinguishable and immortal. It cannot be put down by any force, frowned down by any authority,

extinguished by any argument, suppressed by any ridicule, annihilated by any persecution. All the powers of earth, kings, priests and scientists may proclaim it impossible and declare it *not to be*. But nevertheless it *is*, and will remain. "It moves for all that," was the immortal saying of GALILEO, and this should be the motto of all who proclaim new and therefore unpopular truths.

When you have your facts, and not before, you may construct theories. The use of theory is as a guide in future investigations. It provides a map or plan by which you are enabled to direct with a definite purpose inquiries that are apt to become desultory and vague. But always you should bear in mind that theory is not knowledge but only a guide to knowledge. At the best it is probably but an approach to the truth and more commonly it will be doomed to pass away before some new theory based on a yet larger store of facts or still more ingenious conjecture. Never should a theory be asserted dogmatically.

A few remarks on a subject nearly allied to this may be useful here.

Four terms are in frequent use in scientific discussion, and in common life with conceptions of their meanings so vague that they are often used indiscriminately.

These terms are Faith, Belief, Conviction, Knowledge.

It is essential to scientific discussion that there should be a definite understanding of the relative meanings of these terms, for they are frequently in use alike in books and in the language of common life and few are more and more often abused. They are for the most part used as if they were synonymous terms, and a man will talk of his faith, his belief, his conviction, in as many successive minutes, to express the same thought. Science demands more accurate definitions, for words must express ideas and unless the ideas are definite there can be no clear conception of facts and no accurate reasoning.

Faith, Belief, Conviction, Knowledge, are four distinct

states of the Mind produced by four different mental processes.

Faith is simply acceptance of something asserted by another in whom we have confidence. It is not belief; still less is it knowledge. It is not even a mental effort. "I accept what you say because you say it, without inquiring if it be a proved truth or what were the grounds of belief." Therefore *Faith* is the lowest exercise of the mind. It demands neither intelligence nor effort. It is probably a faculty shared by man with the lower animals. It is greatest in the smallest minds and diminishes in precise proportion to the extent of mental capacity and the enlargement of knowledge.

Belief is a process far in advance of *Faith*. Belief is an acceptance of a fact, not upon faith of the mere statement of another but upon a distinct and definite conception of the fact itself and an assurance of its existence formed upon some *evidence* of it received by the believing mind.

Faith whispers, "*I* say it is because *you* say it is." *Belief* says, "I say it is because I have positive *evidence* that it is." But belief in no way implies that the foundation of it is sufficient. It may be formed on the most baseless testimony; it may be the result of illusion: it may be incapable of supporting itself by any valid argument or sufficient evidence. But it is a mental condition consequent upon mental action and implies at least a distinct conception of the something that is believed.

Conviction is yet a higher effort of the Intelligence. Conviction, properly so-called, can exist only as the result of more or less of examination and proof. It is not a voluntary condition. When sufficient proof is present conviction inevitably follows. We may endeavour to distract attention from unpleasing convictions, but we cannot remove or change them save by the same process that produced them— more proof. *Faith* on the contrary is a voluntary act. No man accepts as truth what another says without an exercise of his own Will. But *Belief* and

Conviction are involuntary states of mind that cannot be produced or changed by any effort of the Will.

One instance will suffice to illustrate distinctions so important to all scientific progress.

A Roman Catholic accepts the miracle of the Real Presence, not from any personal knowledge he has of it, but having *Faith* in the affirmation of it by the Church.

Our ancestors *believed* that the Sun moved round the Earth because they witnessed what appeared to them to be such a motion.

GALILEO was *convinced* that the Earth moved round the Sun, contrary to the common *belief*, because he had investigated the evidence and *proof* was thus brought to his mind that his senses were deceived.

Hence in Science *Faith* is inadmissible, *Belief* is to be viewed with suspicion, *Conviction* alone should justify an affirmation of *Knowledge*.

But the term *Faith* must be understood here as intending an acceptance of a statement without inquiry whether the person who affirms it has personal knowledge. We accept the discoveries of NEWTON because we are satisfied that he had arrived at positive conviction by proof and because others have tested his facts and found them to be correct. This is *belief* not *faith*. It is evidence on which the judgment may be founded and which even the law admits. The *faith* referred to above is acceptance from another, without inquiring if that other had sufficient or even any grounds for his assertion.

But as all Science must be founded upon *facts*, the utmost care is required to ascertain their truth. For this object all the powers of observation and reflection should be exerted. No precaution should be neglected against deceit by the senses, fallacy in argument, and in many things deception and fraud. Nothing should be taken upon trust where personal knowledge is practicable. The most perfect tests of genuineness that ingenuity can suggest should be applied rigorously and often repeated and the fact itself should not be registered in your judgment as confirmed until it has been witnessed

again and again under varying conditions and always with every safeguard against delusion in any form by your own senses or by others. Above all, resolutely insist upon having the best evidence that can be procured, and refuse to accept any lesser proof while more perfect proof is possible.

These rules are applicable in the pursuit of all Science, but in none is their observance so needful as in the study of Mental Physiology and Psychology, because the facts upon which alone they are based are associated more or less with the mental operations of intelligent beings, often in abnormal conditions, when simulation is a feature of the condition itself.

The value of this precaution will appear abundantly hereafter.

Such being the general principles that should direct the student in the pursuit of scientific truth, it may be well to remind him what the truth is that he is so to pursue, for much time and toil have been wasted and much brain power expended in a vain chase after the *unknowable*. There is a limit to the range of the human intelligence and of that limit there should be a distinct conception in the mind of the seeker after truth.

Clearly understand that absolute truth is unattainable by Man, at least in this stage of his being. We can attain to nothing more than *relative* truth—by which term is intended that knowledge which, according to the conditions of our structure, presents itself to ourselves as truth. Our senses are constructed to receive and perceive only an infinitesimal fraction of the things that exist even immediately about us. Of the far greater part of the actual being with which we are encompassed we know and can know nothing, because it is imperceptible to us. Only so much perceptive power is bestowed upon us as is necessary for existence in this world. It may be, as some Philosophers have taught, that the external fact is very different indeed from the mental conception of it. Nay, it is not impossible, although highly improbable, that

there may be no external existence at all and that nothing actually exists but in our own conceptions. These and such as these are ingenious conceits and conjectures and never can be more. They cannot be solved while we are what we are.

Practical Science thrusts aside all such inanities. It argues after this fashion: As absolute truth is simply unattainable, let us cease to seek for it. Relative truth being all that is permitted to us, let us accept the condition and for all practical purposes assume that to *be* the truth which appears to us to be the truth: which is to us truth for every use to which it can be applied—the truth upon which to build theories, or to pursue inquiry, or to base action. Let us take things as we find them, and employ the senses that have been given us expressly for the acquisition of *conditional* knowledge, placing them under the guidance of reason to direct them aright, but not in subjection to reason, so that argument shall supersede fact. When the indolent or the ignorant throw obstructions in your path of inquiry by saying "How do you know that this is what it appears?" answer by asserting that you are seeking only what *appears to be in this world*, and that you wait for another world and a new being differently structured in order to learn what *is*.

Half the controversies that waste the time and temper grow out of misunderstanding of *terms*. The same word often conveys half a dozen different meanings to as many persons. Some use them and receive them in their natural sense. Others systematically employ them in a non-natural sense. This is especially the failing of Theologians, as the history of religious controversy everywhere proves. But Scientific controversy is almost equally disturbed by this besetting sin. Hence the necessity for commencing with a definition of all terms to which different meanings are likely to be attached. *Correctness* of definition is of secondary importance to *agreement* in definition. All that is requisite is that writer and reader should understand any particular term

as conveying to both the same idea. A humble but honest endeavour is made in this treatise to observe this rule even at the hazard of tediousness. Writers often refrain from definition, imagining that the reader will resent the explaining to him of that which he should be assumed to know. Many well informed persons have very vague ideas connected with words, mistaking words for thoughts. Even the most accurate thinkers will be benefitted by the assurance that they are at one with the writer in the conception which he intended to convey. This is emphatically the case in the obscure problems of Psychology, a Science which has ever been the Paradise of indefinite words, hazy thoughts and non-natural interpretations of familiar terms. Therefore the reader is earnestly exhorted to adhere strongly and sturdily to the rule—not to enter upon a fight of *words*. Insist upon having plainly before you the precise *thing* that is in contest. Adhere to it yourself and insist upon it with others.

Prepossession is the great enemy of truth. A really open mind is the rarest of spectacles. The vast majority even of those who call themselves truth-seekers are not really seeking to find honestly and fearlessly what is true —but striving to prove something to be true or not true. They are not consciously dishonest. They deceive themselves. But entirely as is the spirit in which an inquiry is approached so will be the result. The mind unconsciously accepts evidence in favour of its prepossessions which otherwise it would reject as worthless. So it rejects evidence adverse to its prepossessions which it would embrace with eagerness if it pointed the other way or if there were a real resolve to ascertain the very truth. But difficult as the task undoubtedly is, the duty is plain for the student of Science to banish all pre-judgments and preferences, to throw aside all assumptions of pre-existing truths and all dominant ideas, and with a perfectly open mind to note facts and pursue investigations, never pausing for a moment to ask to what conclusions they point, however they may appear to be opposed to

established dogmas, presumed laws of nature, or previous knowledge or experience. As yet we are but on the threshold of our knowledge of nature, her forces and her laws, and to argue *à priori* for or against the existence of any asserted fact, howsoever new and strange, is simply an act of presumptuous ignorance. The one scientific duty is to investigate with honest purpose to learn if it be a *fact*, and finding it so to be to assert it as such, even though it fly in the face of all existing theories and assumptions. To do this demands the loftiest *moral courage*, that rarest of all virtues but the more rare the more to be honoured.

There is an obstinate *rejection* of evidence equally fatal to the acquisition of truth with the too ready acceptance of it. This state of mind is the product of intense self-conceit and is usually associated with crass ignorance, the necessary consequence of shutting out wisdom by so many entrances. There are persons, not few, who positively pride themselves on this their folly. Nothing shall disturb their confidence in their own preformed opinions. They dare not say that their minds are closed against all evidence that does not square with their prepossessions. They say aloud, "I am open to conviction;" but they say mentally, "It will take a great deal to convince me." Facts and arguments are alike wasted on minds so constituted. They have ever dogged the advancing footsteps of science, meeting every new discovery with an incredulous sneer, saying, so far as looks can speak, "What a superior mind is mine to yours. I am not to be imposed upon." Eyes and ears are in such persons obstinately closed against proofs, however cogent, or if the evidence of their senses compels an admission of the fact, they offer some explanation infinitely more impossible or improbable than the fact they dispute. They deny to others the possession of the very senses they claim to have exercised for themselves. The only manner of dealing with such minds is to ignore them. Repudiate alike their testimony and their opinions. Treat them as being neces-

sarily ignorant and incompetent, from their imperfect mental structure, to be heard upon any question of science. Waste neither breath nor time in argument with them. Tell them frankly that they are incapacitated and refuse to hold with them any scientific discussion.

CHAPTER VIII.

THE PLAN PROPOSED.

INVESTIGATION of Psychological phenomena requires to be conducted upon a definite plan, so that the relationship of the various phases presented by them may be distinctly seen and how they grow one out of another. The Reader will be at once surprised and pleased to discover how nearly allied they are, how the more rare and seemingly the most strange are but gradual expansions of the most familiar and natural and how all converge upon one focus to compel the investigator to the conclusion that the Mechanism of Man is moved, and its motions determined, by an indwelling intelligent force, other than that of the material structure or of any of the known physical forces, thus giving *scientific* proof that Man is something more and other than the material molecular body; that the Conscious Self is a non-molecular being—call it Soul, or Spirit, or what you will—possessing the molecular structure, but as a distinct and definite entity capable of partial and of complete separation from it.

The plan proposed for this inquiry, conducted strictly according to scientific rule, into the psychological phenomena exhibited in the abnormal conditions of that mechanism is to begin with the most frequent and familiar, whose existence is undisputed — such as Sleep and Dream, Delirium and Insanity.

To advance from these to the unquestioned conditions, whose phenomena, being of less frequent occurrence, are less familiar and therefore excite in us surprise; but which, in fact are not more wondrous

or unaccountable than the phenomena whose greater frequency has destroyed their strangeness. Such are the phenomena of Catalepsy, Trance and Natural Somnambulism.

We shall proceed lastly to the Phenomena whose existence is disputed by some, but which are confidently asserted by scientific and other investigators, of at least equal competency, as having been proved to their perfect conviction—there being between these two parties the important difference, that the one has witnessed what it affirms and speaks from personal knowledge and positive experiments, the other has not witnessed the phenomena it denies but disputes them by *à priori* argument alone. Such are the phenomena of Artificial Somnambulism and Psychism.

In pursuance of this plan, the abnormal action of the Mechanism of Man will be described under eight classes, although, in fact, they meet and blend at so many points and pass so insensibly one into the other that it is impossible to draw any definite boundaries for any one of them. It must be understood that many of these phenomena belong to two or more of the categories into which, for convenience, they are here classified. But the general arrangement will be thus:

1. The phenomena of Sleep and Dream.
2. The phenomena of Delirium and Insanity.
3. The phenomena of Catalepsy.
4. The phenomena of Natural Somnambulism.
5. The phenomena of Artificial Somnambulism.
6. The phenomena of Ecstacy and Trance.
7. The phenomena of Psychism.

BOOK III.

OF SLEEP AND DREAM.

CHAPTER I.

WHAT SLEEP IS.

SLEEP is necessary to the health of the human organism. The Mechanism of Man depends for its sustentation and reparation upon recurring seasons of rest.

The condition of sleep is probably a requirement of organic structure. So far as we can trace it, all animal life sleeps. There is almost conclusive evidence that vegetable life sleeps also.

In this respect organic structure differs from inorganic structure. Minerals do not sleep. Only things that have *life* sleep.

But sleep is not a suspension of vital action. The processes conducted by the vital force continue their work in sleep, often more vigorously. The intelligence, also, is not wholly suspended in sleep. The functions of nutrition are performed even more perfectly than in the waking state. Rest appears to be required mainly for the muscular structure and for the nerve system that moves the muscles. The senses are often wholly, always partially, sealed in sleep. But it is doubtful if this be the result of a requirement for rest by the senses. The more probable inference is that the suspension of

the senses is necessary to the suspension of muscular action.

Sleep, therefore, may be defined in general terms as the suspension, more or less perfect, of the action of the external senses, so that they cease to convey vividly to the mind the impressions made upon them. The action of the Will is likewise suspended, so that it ceases to convey the commands of the mind to the body. Thus is the rest procured that is required for the body.

The entire mechanism of the body and mind does not sleep but only a part of it. In sleep the *body* performs all functions necessary for its continued healthy being. The *mind* dreams. The consciousness of the Individual Self is awake, for we note our dreams as they occur, believe that we are acting them and remember them afterwards.

CHAPTER II.

THE PHYSIOLOGY OF SLEEP.

VARIOUS conjectures have been advanced as to the precise physiological change that attends the condition of sleep. Some have located the source of sleep in the heart and others in the head. It was formerly a favourite theory that the action of the heart slackened and then the blood, flowing slowly through the brain, caused a kind of congestion there. This was, in fact, to look upon sleep as a species of coma that produced unconsciousness by pressure upon the fibres of the brain.

The later and better opinion is, that sleep is produced by the reverse of this process: that it is not a state of congestion but of collapse; that the blood flows *from* the part of the brain that sleeps, which is thus left in a state of depletion, with a consequent collapse of the brain fibres.

Observation of the actual brain of a man who had been trepanned and over a part of whose brain a movable silver plate was placed entirely confirmed this conjecture. In sleep the convolutions of his brain were depressed; when awake they resumed their normal form; when his mind was exerted they swelled visibly.

Any reader who has been suddenly wakened may recal a sensation as of swelling of the brain by the blood rushing into it. This sensation was probably the result of the rapid erection of the flaccid brain fibres.

Other facts strongly support this theory. When the action of the heart is stimulated by any excitement, mental or bodily, sleep will not come. So long as the

brain is busy we court sleep in vain. To induce sleep we apply remedies that tend to draw the blood from the brain to the extremities. A full meal engenders sleep; but not, as formerly supposed, by congesting the brain, but by attracting the blood to the stomach and so depleting the brain.

Note in another the process of "falling asleep." The eyes move more and more slowly, the eyelids descend, the head nods and droops, the limbs relax, the book drops from the hand. Usually before positive sleep occurs involuntary endeavours are made to resist it. The eyes open with a stare. Consciousness is regained with an effort and a start. The thread of waking thought is resumed. But for a moment only. Again the head nods, the eyes blink and close, the limbs relax. He is *asleep*.

What are our own sensations when we *go to sleep?* Thought wanders. Ideas come straying into the mind unbidden and with no apparent association. External objects grow dim to the eye and sounds fall faint upon the ear. The communications of the senses to the brain are dull and uncertain. We are conscious that the power of the *Will* is relaxed. We strive to retain it. We recover it by an effort. We resume the work on which we were engaged. Vain the struggle. The thoughts wander still. The unbidden pictures flit again before the mind's eye. We are conscious of the relaxation of the limbs and the closing of the eyelids. Then we cease to be conscious of external existence. We sleep.

But we are not conscious of *the act* of falling asleep—for itself is a suspension of consciousness. With some sleepers sleep is, as they affirm, a condition of entire unconsciousness. These tell us they have no sense of existence until the moment of waking and that, however protracted their slumber, the moment of waking is to them as the moment after having fallen asleep. It is impossible to contradict those who thus affirm, for their mental condition in sleep cannot be read. But if a judgment may be formed from their *actions* in sleep, as

talking and motions of the limbs, the probable explanation will be that they dream but do not remember their dreams. *All* dreams vanish from *their* memories as *some* dreams vanish from the memories of those who habitually dream.

If we observe the aspect of a sleeper, we note the features placid, the breathing regular, the pulse soft and even, the limbs relaxed, the skin moist. Occasionally there are quiverings of the limbs and expressions of the face which betray the presence of mental emotions.

This is the *physiological* condition of Sleep.

We turn now to its *mental* condition.

CHAPTER III.

THE MENTAL CONDITION OF SLEEP.

Of all the phenomena exhibited in Psychology and Mental Physiology there is none more marvellous than that which is presented to every one of us every night. It only does not astonish us because it is so familiar. Perhaps the reason why so few have given a moment of reflection to its marvels is because they are seen so often. When the attention of the reader is more closely invited to these phenomena he will doubtless be surprised to find what a world of wonder is opened to him.

The passage from waking to sleeping is momentary. The closest observer of his own mental action fails to note it. But what a change is made in that moment! A complete mental revolution has been effected. The man himself has changed entirely. He has ceased to be a rational being! He is almost wholly severed from the external world, which exists for him no longer! His *Will* (which is the name we give to the *expression* of the Conscious Self) is paralysed. He has ceased to command his thoughts and his emotions. He has no control over his limbs. With the sole exception that he dreams he is but a breathing clod. Of the forces that move his Mechanism life alone is active, working steadily and harmoniously as before. As we shall presently see, the other forces that move and direct the mechanism—the forces of *Mind* and *Soul*—are not inactive. But they have withdrawn from their waking work. They exist and their existence is manifest. But they have ceased to control and the mechanism has ceased to obey.

Some proof this—is it not?—that these Psychic Forces are distinct from the vital force and from the physical forces and flow from another source. These phenomena of sleep supply further and most cogent evidence of the fallacy of the contention by the Materialists that the vital force alone governs the mechanism of Man and that all the forces that direct the mechanism are generated by the machine itself.

In sleep the vital force continues to do its normal work. At the same moment some other force or forces are engaged in doing abnormal work, thus establishing the fact that some force or forces, other than the vital force or the physical forces, are employed in moving the mechanism of Man.

Pause to think for a moment what is this wonderful mental change that in a moment converts *the Man* into something less than a mere animal—into little more than a senseless vegetable!

What, then, is the *mental* process of sleep?

The first perceptible signs of its coming are what are well called "wandering thoughts." The Will resigns its control, at first fitfully, then at intervals continually diminishing. Nevertheless the Will strives to retain its hold upon the brain, then relaxes, then seizes it again, but with ever lessening power. "*Attention*" to the subject before the mind wanders—is recalled—wanders again —and then ceases altogether.

With this relaxation of the *Will* and consequently of "attention"—which is an effort of the Will—ideas begin to flow unbidden into the mind. At first they are banished almost as soon as they appear. But presently they return and disturb the train of waking thought; then they mingle with it; then they put it altogether to rout and usurp its place. At the beginning, we are competent to sever the intruding ideas from the true ones and we make an effort to banish them if we desire to be wakeful. But they return ever more vividly and persistently until at length they take full possession of the mind. If we are courting sleep, we welcome the intruders

and willingly resign the control of our thoughts. In either case the state of actual sleep occurs at the instant when the *Will* ceases to work actively and *attention* ends.

Then begins the condition of *Dream*, to be treated of presently.

Our business now is to trace, so far as we can, the *mental* change that attends the condition of sleep. The phenomena just described are the action of the mind in the process of *falling asleep*. The *state of sleep* presents other features.

The mental condition of sleep, apart from dream, is very remarkable and should be carefully noted and remembered by the Student of Psychology.

The *Senses* are suspended—but not entirely. They are rather dulled than paralysed. We hear imperfectly and we are unable to measure sound. Often a loud noise is not heard when a whisper wakens; a slight sound seems to the sleeper like the report of cannon. The sense of touch is only dulled, as we know by the manner in which it influences dream. Whether the sense of sight ceases entirely we cannot know, because the eyelids veil the eyes and external impressions are consequently not made upon them. Taste and smell are dimmed but not effaced.

CHAPTER IV.

THE SEAT OF SLEEP.

These facts point to the conclusion that the partial paralysis to which the senses are subjected in sleep does not occur at the points of communication with the external world but somewhere between the extremity of the sense-nerves and the brain or at the point of communication between the brain and the Conscious Self. There can be little doubt that in sleep impressions are made upon the nerves as when we are awake. There is some evidence that the impressions so made are conveyed by the afferent nerve to the ganglion at the base of the brain hemispheres. The experiments of Professor Ferrier have proved this ganglion to be the centre upon which the sense-nerves converge; that to this centre those impressions are conveyed and thence are transmitted to the brain hemispheres, or that at this point the hemispheres of the intelligence receive notice of their presence.

In Sleep the brain is unable to convey its commands to the body. The nerves do not obey. Something that operates between the brain and the nerves, and which was active in the waking state, is inactive in sleep. What is that *something?* It is the *Will.* The Will has wholly or partially ceased to act and thus the body has ceased to be controlled by the mind. This is the process by which the needful rest of the body is brought about.

Here the question comes, in what part of the mechanism does the change occur that thus causes the suspension of

the power of the Will and the partial severance of the Conscious Self from its normal control of the body? *How* does sleep accomplish so great a revolution? If the whole mental mechanism were inactive in sleep this question would be answered easily. We should say, "the entire of the brain is sleeping and therefore the whole mechanism is at rest. The motive forces that move and direct the machine in its waking state have ceased for a time from their work and the structure stands still."

But that is *not* the condition. All the forces have not ceased from their work. The vital force continues in full activity, keeping the machinery in motion and performing the work of nutrition, reparation and growth. The *mind* is not at rest; the phenomena of dream directly contradict such a conclusion. The whole mental mechanism is certainly not at rest. A part of it is very busy. The hemispheres of the brain are not sleeping—or sleeping but partially. They are enacting dreams. They are in truth working with infinitely greater speed and power when we are asleep than when we are awake!

If, then, the brain hemispheres are waking above and the body is sleeping below, the communication between them must be severed by sleep at some part of the mechanism below the brain hemispheres (which are the mechanism of the Intelligence) and the point where the brain branches into the nerve system — which is the mechanism by whose action the vital force forms and sustains the organic structure.

That point is obviously the point at which the Will exercises its power of control over the body. Thus does this inquiry into the Psychology of Sleep and Dream promise to throw light upon that mysterious part of the mechanism of man. Professor FERRIER has proved that *the Will* is exercised through the brain hemispheres, which are the organs of the Intelligence. In the waking and normal condition of the structure the Will commands and controls the body. In sleep and other abnormal

conditions the Will ceases to command the body. Between the brain hemispheres and the nerves that move the body something seems to be interposed which either paralyses the Will or ceases to transmit its commands. What is that *something?* Anatomically we find two ganglia, one being the centre upon which the nerves of the senses converge. We know, also, that in sleep the senses cease to transmit their impressions or do so but dimly. The conclusion is that the seat of sleep is in this ganglion. Because that is slumbering the commands of the Will cannot be conveyed from the brain to the body nor can the messages sent by the senses from the body be conveyed to the brain.

It is a moot point if the entire of the mechanism of the brain, or parts of it only and what parts, fall into the condition of sleep. But, however that may be, there can be little doubt, from the facts stated above, that the ganglion at the base of the brain hemispheres is the seat of sleep. It is certain that the entire of the two brain hemispheres does not always sleep, or dream could not be. We have no certain knowledge if the ganglion that interposes between the cerebral centre and the body and whence streams the nerve system succumbs to sleep. The presumption is that it does not, for the nerves whose office is to sustain the functions of the vital organs do not sleep. Why they need not the rest that is required by other parts of the mechanism we do not know. Rest appears to be necessary for that portion of the mechanism only that is subject to *voluntary action*. Where *the Will* controls, the repose of sleep is required for all structure subjected to it. Why?

Does the nerve system that moves the mechanism of the body sleep? The bonds that link brain and body are relaxed. The Will has ceased to control either of them. The material form is at rest. But it rests only because the power of the controlling Will is paralysed. All *in*voluntary actions continue and with the more regularity and efficiency because they are not subjected to the disturbing influences of the Will.

And what is this potent Will?

The Will is merely the expression of the Conscious Self—the power which the Conscious Self exercises over the material mechanism of the body and through the body upon the material world without.

CHAPTER V.

OF DREAM.

As already stated, at the first approach of sleep we are conscious of inability so to control our thoughts as to keep them in the orderly train they had been pursuing previously. Ideas come uncalled for. Pictures rise before the mental eye and vanish instantly. Other pictures intrude having no apparent association with their predecessors. They enter and pass before us unbidden. The mind falls into confusion. There is entanglement of the threads of thought. Even while the eye is yet open the objects on which it gazes fade and vanish. Sounds fall faintly upon the ear and die away. The vision of the mind grows dim or is eclipsed by other unsummoned pictures, often altogether incongruous, which blend with the picture present, then melt into it, then usurp its place and then are in their turn displaced. We are conscious that we can no longer control the movements of the mind. Momentary resistance to the influence of the coming sleep but provokes its more vigorous return. For an instant we wake with a start to consciousness of the external world. If we desire to be wakeful we exert the Will fitfully, revive to waking life for a moment, contract the relaxed muscles, open the drooped eyelids, stare with a peculiar expression of imbecile amazement and strive to look as if we had *not* been surprised by sleep. For awhile the mind resumes its normal action. But soon the thoughts are once more dislocated and replaced by a swarm of yet more dissevered ideas. We exhibit again the dropping lid, the relaxing muscle, the nodding head. Strive as we may, we are unable to note the moment

when unconsciousness begins. We remember *falling asleep*, but we do not remember, and no human being has ever yet remembered, the very act of *going to sleep*.

The mental condition of *falling asleep* resembles very closely the dissolving views at exhibitions. So do the pictures of the mind steal into the field of view and mingle and melt away, nor can we discover where one ceases and the other begins, so imperceptibly do they glide in and blend.

We sleep.

What is then our *mental* condition?

It is a condition of *partial* unconsciousness. In this respect it differs from the condition of coma and of trance, in which there is *entire* unconsciousness. In the most profound sleep perfect unconsciousness never prevails. Impressions may be made upon the senses of the soundest sleeper that will waken him. The degree of oblivion caused by sleep varies immensely with various persons and with all persons at various times. Some are "light" and others "heavy" sleepers. Some are wakened by the slightest noise or the gentlest touch. Others will slumber though rudely shaken, or while cannon are roaring. It is a remarkable fact, not yet sufficiently explained, that a whisper will often waken a sleeper by whose side a gun might be fired without disturbing him. Others answer aloud to questions whispered to them when sleeping and there are recorded cases of conversations being thus sustained and inconvenient revelations made by the sleeper which have astonished him on their subsequent repetition — there being in such case no after memory of the dialogue so strangely conducted.

The *senses*, therefore, are but partially sealed in sleep. They are dulled, not paralysed. They convey imperfect sensations—or the sensations conveyed are imperfectly perceived—we know not which. As will be shown presently, they more or less influence mental action. They suggest dreams. But their reflex action has ceased. The nerves that convey the messages to the brain are

sluggish. The nerves that convey the consequent message from the brain to the body are for the most part inactive.

The aspect of the sleeper to the observer is that of unconsciousness. Motions of the limbs occur at times, but they are involuntary. He seems dead to the external world and to have ceased from active life.

Nevertheless, while that form is so still and seemingly so senseless—while consciousness of a world without is suspended—in this sleep that has been called the twin brother of death—the senseless sleeper is making a world and living a life of his own within himself. That brain is not sleeping with that body. It is awake and busy—often more busy than when the body is awake. It is enacting whole dramas—living new lives—wandering away among worlds of its own creation—crowding into an hour the events of years—doing, saying, seeing, hearing, feeling, even while we gaze, a hundredfold more than the waking senses could possibly convey or the waking frame perform.

Is it not marvellous when we thus think of it? Would it not be pronounced incredible—impossible—the narrator a "rogue and vagabond"—the believer a credulous fool—were it not that it is *a fact* familiar to all of us? Is it not in itself as marvellous as any of the phenomena of other abnormal mental conditions, which are received with incredulity and ridicule only because they are of less frequent occurrence and less familiar?

But before we pursue the inquiry into the phenomena of Dream it will be necessary to describe the material mechanism by the operations of which they are produced.

CHAPTER VI.

THE MATERIAL MECHANISM OF DREAM.

It is difficult to describe, without the use of technical terms, the structure of the mechanism by which Dream is produced. But as these are at once unintelligible and repulsive to the non-scientific reader, indulgence is entreated for an endeavour to present the subject in shape and language that may be understood by everybody.

It must be premised that this description is partly derived from the recent treatise of Professor Ferrier on "The Functions of the Brain," * in which he details the experiments that have thrown so much light alike upon physiology and psychology.

The spinal cord expands at its upper end into a ganglion or cluster of nerves called the *medulla oblongata.*

At this point the brain is said to cease and the nerve system to begin. But there is no perceptible beginning nor ending either of the brain or of the nerves. The entire nerve system is, in fact, only an extension of the brain. When a nerve is irritated at the point of the finger the brain as well as the nerve is affected. The nerve transmits the sensation and the brain feels it. Psychologists would venture a step further and say, "It is not the brain that feels, but the intelligent individual entity, the living *soul* or *self*, of whom the brain is only the material transmitting organ."

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* *The Functions of the Brain.* By David Ferrier, M.D., F.R.S. London: Smith, Elder, & Co., 1876.

It is at the extremity of this ganglion that the cords wrapped within that great bundle of nerve threads which constitutes the spinal cord cross each other and pass into opposite sides of the brain and of the body. The nerves that control the left side of the body pass into the right side of the brain and those that control the right side of the body pass into the left side of the brain. As the consequence of this exchange, the right side of the brain controls and directs the left side of the body, and the left side of the brain the right side of the body.

Above this basal ganglion, but connected with it, is a ganglion which anatomists have divided into two parts, but which for the present purpose it will be convenient to recognise as one whole lying at the base of the brain and crowned and inclosed by the cerebral hemispheres. From this great basal ganglion small white threads radiate into the two cerebral hemispheres, in the form of a hollow cone.

Above the basal ganglion lies another great ganglion (the *cerebellum*), also divided into lobes, and which is connected with the basal ganglion by two bands (or peduncles). It is connected also with the two cerebral hemispheres by two bands. It is connected with the central ganglion by a thin lamina, which stretches to the other ganglia, thus connecting all the ganglia with the centres of the senses and the centres of motion—that is to say, with the centre that receives the messages of the senses and with the centre that conveys the commands of the Will to the body.

Above and extending in front of these is the *cerebrum*, the organ of the intelligence, composed of *two* hemispheres which crown, inclose, and overlap the ganglia at the base of the brain.

These two great hemispheres are distinct bodies, each complete in itself. They are united by fibres that pass from one to the other and thus secure joint and co-ordinate action. These fibres are observed to connect together corresponding regions of the two hemispheres.

At their bases the two hemispheres are in direct

contact with the ganglion above described as the central ganglion, but which has been anatomically subdivided into two pairs of ganglia. For the purposes of this treatise, however, notice of the more minute subdivisions of the brain mechanism is not necessary.

This ganglion is the centre upon which all the nerves of the senses converge. Each of its divisions is supposed to be appropriated to a distinct sense. But even if each part has its own work to do, it is not less a whole than are the cerebral hemispheres, which are now proved to be a machine, various parts of which are devoted to various mental operations.

The cerebral hemispheres are formed of great bundles of fibres, in the shape of rolls, plainly visible on the outside, but which baffle the attempts of the most dexterous anatomist to unfold them below the surface.

And the whole brain is covered with an extremely delicate and highly sensitive membrane.

The substance of the brain itself is insensible, although it is the recipient and supposed seat of the pains and pleasures of the body—or rather of the nerves, for what we call the body is only the *in*sensible clothing of the sensitive nerves. The *nerves feel*; the flesh and bones do not feel.

Is not this fact another powerful argument *against* the doctrine of the Materialists, that consciousness and mind are only states of brain or conditions of matter? If the brain is not conscious of injuries done to itself, if it is insensible even to its own destruction, how can it be the "*Conscious* Self"?

But the enveloping membrane of the brain is exquisitely sensitive. It is the seat of headache, of *delirium tremens*, of brain fever, of hydrocephalus, and probably of many more diseases which we are wont to refer to the substance of the brain.

It is probable that this envelope of nerves unites all the parts of the brain and by transmitting to each part the condition of all the other parts produces that co-ordination of parts and unity of action so necessary to

healthy life. But this membrane of nerve cannot surely be deemed by the most bigoted Materialist to constitute the Conscious Self.

Professor FERRIER has proved, by a multitude of minutely detailed experiments, that not only has each ganglion its proper function, but that each part of each ganglion is devoted to some special duty, thus completely shattering the theory that holds every mental operation to be an act of the whole brain. He has established the grand basis of modern mental Science, the recognition of the fact that the brain is the material organ of the mind; that distinct parts of the brain are devoted to distinct mental operations; that not the whole brain, but only parts of it, are employed in any mental operation. But it is yet for observation and experiment to ascertain what are the parts of the brain so appropriated to mental functions, and what is the precise function of each part.

Professor FERRIER has made considerable advance towards the determination of this question. His experiments have demonstrated what are the functions of the ganglia at the base of the brain, not being the seat of the Intelligence. His experiments were attended with more cruelty than I could excuse even for the important accessions they have brought to knowledge. But they are not therefore the less valuable as contributions to Physiology and Psychology. I can but briefly describe the *results* of such of them as bear immediately upon the subject of this inquiry.

Let me, however, first confirm, by the authority of Professor FERRIER, the proposition that various parts of the brain have various functions.

"That the brain is the organ of the mind," he says, "and that mental operations are possible only in and through the brain is now so thoroughly well established and recognised that we may, without further question, start from this as an ultimate fact." He proceeds:

The physiological activity of the brain is not, however, altogether co-extensive with its psychological functions. The brain as an organ of motion and sensation, or presentative consciousness, is

a single organ composed of two halves; the brain as an organ of ideation, or re-presentative consciousness, is a dual organ, each hemisphere complete in itself. When one hemisphere is removed or destroyed by disease, motion and sensation are abolished unilaterally, but mental operations are still capable of being carried on in their completeness through the agency of the one hemisphere. The individual who is paralysed as to sensation and motion by disease of the opposite side of the brain (say the right), is not paralysed mentally, for he can still feel and will and think and intelligently comprehend with the one hemisphere. If these functions are not carried on with the same vigour as before, they at least do not appear to suffer in respect of completeness.

As the object of this treatise is not anatomy but psychology, it will be unnecessary to describe minutely the entire of the brain structure. It will suffice for the present purpose to view the brain, above roughly sketched, as having *three* well marked divisions, each with definite and distinct functions.

(1). The ganglia *at the base* of the brain govern the actions of the body. (2.) The ganglia *in the centre* of the brain are the recipients of the impressions made upon the senses and thus are we connected with the external world. (3.) The two hemispheres *at the summit* of the brain are the organs of the Intelligence.

Professor FERRIER'S experiments were made with a view to ascertain whether the theory of Dr. CARPENTER is true, that the whole brain works in each mental action; or if the opposing doctrine be the true one, that the several parts of the brain have several and distinct functions. Dr. CARPENTER had prematurely boasted that he had killed this doctrine of brain division. But Professor FERRIER'S experiments have decisively *disproved* the doctrine of Dr. CARPENTER and killed *his* theory of mental unity.

The experiments were conducted chiefly with monkeys and dogs. The former were the most valuable, because the brain structure of the monkey is almost identical with that of man.

The experiments were performed by producing insensibility by chloroform and then extracting in mass certain

portions of the brain, or by destroying parts of the brain by the actual cautery. Electrodes were applied to the parts to which access had been thus obtained and the effects of their stimulus upon the actions of the animal were carefully observed.

I will not attempt to detail these experiments—but merely state some of the results. For the many important facts that were discovered by them reference must be made to the valuable volume in which they are reported.

He found the entire brain to be connected with the body by interlacing of the nerve system. Excitation of the right brain was shown by the left side of the body; of the left brain by the right side. So it was with the nerves of the senses. Whether the like structure exists in the duplex organ of the Intelligence he could not trace, because the mental results were incapable of being expressed by experiment upon animals who cannot tell us what are their emotions. But he entertains no doubt that the same structural scheme exists also in the action of the two hemispheres of the Intelligence.

The great ganglia at the base of the brain, whether excited by electricity or destroyed by cautery, yielded the same result. They proved beyond doubt that *their* function is to direct the actions of the body under the peculiar conditions of its duplex structure—a formation by two distinct and not wholly similar halves joined together and requiring community of action. This process of separate action for each part, combined with motion in *co-ordination*,—that is to say, the regulation of the motions of the limbs so that the two halves of which the body is builded may act in definite relationship—was found to be the special business of those basal ganglia, any disturbance in them being attended with imperfect movements of the body, even to the extent of causing the animal to walk in a circle, having lost entirely the power to "walk straight." The results of this ingenious experiment are extremely curious and throw great light on the physiology of locomotion.

The second division of the brain, lying in its centre, overlapped behind by the cerebrum, resting on the centres that direct bodily actions and dominated by the hemispheres that are the organs of the Intelligence, is shown by these experiments to be the centre upon which the senses converge. To this common centre the impressions made upon the senses by the external world are conveyed. The Professor's experiments seemed to indicate that a distinct ganglion is devoted to each sense, although all the ganglia are united in one mass for the common purpose of reception of the information brought to them. The destruction of different parts of this brain centre was found to be followed by the loss or impairment of different senses. It was found, also, that this part of the brain was duplex, like the other parts, for destruction of the right side of the ganglion caused paralysis of the senses on the left side of the body, and *vice versâ*.

A question of much interest arises here. What is the precise function of this sense-receiving portion of the brain? Is *itself* perceptive of the sense-impressions brought to it or is it merely the medium for transmitting those impressions to the hemispheres above? There is no doubt that in health the same ganglion communicates to the organs of the Intelligence the same impressions that it receives, for we take cognisance of them in almost every mental act. We know also that when the brain is diseased false sense-impressions are conveyed to the Intelligence. But in exploring the psychology of sleep and dream, it would be very advantageous to ascertain if the sense portion of the brain that is recipient of the sense-impressions be an active or merely a passive agent.

The experiments of Professor FERRIER are almost conclusive upon this most important point. He removed the brain hemispheres of a monkey and of a dog. The animals lived and appeared to enjoy health; but *they had lost intelligence*. They had not, however, lost the use of the *senses*, and they were manifestly conscious of the

impressions brought by the nerves of sense. The external world continued to exist to them and was perceived by them as before the organs of the Intelligence were removed. But when the central division of the brain was taken away, and nothing left but the lower lobes that govern muscular motion, all the senses ceased to act, or consciousness of their action had ceased. Nevertheless the power of locomotion and the co-ordinate action of the limbs was preserved with very little loss of power. Removing the basal ganglion, the power of locomotion was lost and co-ordination of muscular action ceased.

Above the central sense-organ tower two hemispheres —*two* brains, in fact—each distinct and complete in itself and each competent to act without the other. The function of these brain hemispheres is to execute the processes we term *mental*. Hence they are the organs of the intellect and of the sentiments. Through them we think, reason, and feel. Injury to parts of them injures more or less, *not* the *whole* mind, but *parts of the mind*—certain mental faculties only. Destruction of the entire of these hemispheres is not death but idiotcy, as proved by Professor FERRIER'S experiments.

Let it then be clear in the mind of the reader, when surveying the phenomena of sleep and dream and inquiring into their causes, that for the purpose of such an outline of the Physiology of the Mind as this, the brain is to be viewed by him as having *three* marked divisions (1) the organ of the *Intelligence* at the summit, (2) the organ of the *senses* in the centre, (3) the organ of *bodily motion* at the base.

There are many sub-divisions of the brain known to anatomists and necessary to be known by the student of physiology. But these will suffice for the student of Psychology. They are easily understood and readily remembered.

In the waking and normal state the whole brain is awake, all its parts acting in concert and preserving strict co-ordination. The reasoning faculties correct the senses; the senses correct the imagination; the intelli-

gence controls the emotions; the emotions give vigour to the Will; the Will commands the entire mechanism of the body and expresses upon the external world the results of that combination of intelligent actions and emotions which we term "*the mind.*"

In sleep this relationship is changed. The reasoning faculties cease to correct the senses; the senses no longer correct the imagination; the emotions are unable to influence the Will; the Will loses almost entirely its command of body and mind alike.

However it may be in dreamless sleep, in the condition of dream the *entire* mental mechanism certainly does not sleep. Some part of it is awake and active. What is that waking part?

It is beyond question that the cerebral hemispheres are wholly or partially awake in the process of dream. In deep sleep the sense-ganglia are wholly asleep. In all sleep the senses sleep, only sometimes not so profoundly as completely to exclude cognizance by the Conscious Self of the sense-borne impressions. Sleep affects also the ganglia at the base of the brain that control the action of the body. This, indeed, would appear to be the primary purpose of sleep. Sleep is obviously designed to give rest to the *material structure*—time for its growth and renovation. It is for this reason that *the Will*, which in the waking state directs the motions of the structure, ceases to control it during sleep. The Will itself wakes—for we are self-conscious in dream. In sleep, the material mechanism does not obey the command of the Will because itself is sleeping.

We arrive thus at the conclusion that the *central* and *basal* portions of the brain are the seat of sleep. Unless *they* sleep we do not sleep. If they sleep we sleep, even although both brain hemispheres should be wide awake.

And this raises the question, so important in the Psychology of Dream. Do the brain hemispheres, that duplex organ of the Intelligence, sleep wholly or partially, or do they continue to be awake while the sense-brain and the body-moving brain are sleeping?

This problem can be solved only by careful examination of the phenomena of dream. Suppose that Professor FERRIER could do with us as he did with the monkeys and dogs—take out a portion of the brain and so remove altogether its middle and basal sections, leaving the hemispheres alone in the skull. Would the hemispheres sleep wholly or in part? Or, if awake, would they exhibit the phenomena of dream as now?

Contemplate then, if you can, a duplex intelligent brain, in a state of activity but cut off from all communication with the external world through the media of the senses and from all control over the body;—in fact, an isolated, self-acting, self-contained mechanism, the organ of intelligence and emotion.

How would it work?

First, it must be set in *motion*. Thus we are brought directly to the problem, "What moves the mind?" Why does *this* particular thought or feeling rather than some other come into my mind?

The solution commonly accepted is that ideas come by *suggestion*. This means that ideas are, as it were, linked together and consequently that when one idea comes it is followed by certain other ideas which at some former time were connected with it. Probably the greater portion of the ideas that come to us, apparently without such association, are suggested by some impression brought by the senses but received by the sensorium unconsciously to ourselves and that thus the "train of thought" is started.

If it be so in our waking time, when the mind is busy with a multitude of impressions flowing in upon it from every sense, much more is it likely so to be when the impressions made by the senses are few. The experience of every reader will assure him that so it is. In sleep, a slight sound falling upon the ear will often suggest a dream of rattling thunder.

But the idea, once suggested, draws after it whole trains of associated ideas and these ideas excite the *emotions*, precisely as they would have done had each

idea been brought by the senses in the waking state. Thus far, then, we learn that the mental mechanism which produces what we call *ideas, sentiments* and *passions* are not asleep. Some if not all of them are certainly awake and as active as in waking life.

The Will, too, is not asleep although powerless to command. In dream we *will* to speak and do, but the body does not obey the Will, or obeys but partially. The efforts of the Will to command the limbs to move—as to escape from dreamed-of danger—and the failure of the limbs to obey are often attended with consciousness of painful efforts made in vain.

So far the phenomena of dream are consistent with the entire of the duplex organ of the Intelligence being awake while the lower portions of the brain are sleeping. Certainly it is difficult to conceive of parts of such a structure as the two brain hemispheres being asleep, relaxed and insensible, while other parts of it are awake and active.

For, if Professor FERRIER is right and distinct functions belong not only to each ganglion but to various parts of each ganglion, the brain hemispheres, which are the material mechanism of the Intelligence, must consist of many parts having different duties. We know that anatomically these parts, if they exist, are in intimate connexion, lying closely packed together, if not actually interlacing, and it is difficult to suppose that one part can be sleeping while its neighbour is awake, especially as sleep is attended, if not caused, by a depletion of blood from the fibres of the brain.

Nevertheless there are characteristics of Dream which appear to indicate a suspension of activity in some parts of the mental mechanism. Although perfectly conscious of the presence of the dream, we are unable to discover that it is not real; we cannot discern incongruities nor recognise impossibilities. The dead of long ago come to us and we are not amazed. We walk the waters and float in the air and are not astonished. Nothing is too impossible to be done and nothing too monstrous to be

implicitly believed. We are, in fact, *insane* in dream. Some faculty that corrects the action of the mind when we are awake is certainly absent or paralysed during dream. Upon waking, something must come to us from without or operate upon the mind within that restores us in a moment from the insanity of dream to the sanity of our waking lives, enabling us then to discern the false from the true, the shadow from the substance, the impossible from the possible.

What is this faculty present when we are awake, absent when we dream?

The solution most favoured by psychologists is that in sleep we lack the correcting influence of the senses. The mind, they say, having nothing wherewith to compare its own creations necessarily accepts them as realities. It puts implicit faith in the pictures of the dream, however monstrous, simply because they are presented to it precisely in the same manner as facts are presented when we are awake.

I confess to great doubt if this explanation be adequate. True, we believe the impossibilities of our dreams *to be* because they appear to the mind to be. But that does not explain the strange absence of perplexity and wonder when we witness (as we then verily believe) the dead alive, the distant near, and impossible things performed with ease. In our waking state, if the like dreams come into the mind at some moment of idleness, they are never mistaken for realities. Reason rejects them. If entertained for awhile it is but as a pleasant vision. Nor is the problem solved by the suggested slumber of the reasoning faculties. These are not always asleep in dream, for often we dream that we are exercising them readily and effectively. The power of reasoning employed in dream is, however, very limited. It can exercise itself on the *subject* of the dream but not upon its surroundings. It is not uncommon for the sleeper to dream that he is making a speech or preaching a sermon. The discourse is argumentative and logical. It is not merely that he dreams

he is logical. He is so in fact, for the dream is often remembered and no flaw is found in the argument. Nevertheless, at the moment our reasoning faculties are constructing a strictly logical and perfectly rational discourse—they are unable to inform us—as when we are awake they would—that the place where we suppose the speech to be spoken, the occurrence and the occasion, are not merely fictitious but attended with the most palpable absurdities.

Contemplating the structure of the brain hemispheres, it is difficult to infer that one or more parts of them only are sleeping while the other parts are awake. May not the solution of the problem be found in the fact that we have *two* brains? Is it not possible that, in the condition of dream, one hemisphere—that is, one mind—may be awake while the other is asleep and that thus the phenomena of dream are produced?

To answer this it is necessary to inquire what must be the action of *two* brains working, like the two eyes, together or separately?

For the common purposes of life the two brains, like the two eyes and the two ears, act in complete accord. As with the two nerves of vision, they co-ordinate. Either can act alone for the ordinary uses of existence, just as one eye will do the usual work of sight. But as we see more perfectly, extensively and roundly with two eyes than with one—so it may be reasonably concluded that we think more truly and clearly and feel more strongly when the two brains act together than when one is working alone. The faculty of *comparison* is one of the most important of the mental powers, for it is the basis of accurate knowledge. But it may be doubted if this faculty in one brain can do its work unless assisted by the action of the other brain, for this reason: Unlike the other mental faculties, "comparison" can only exercise itself upon *two* ideas. Its special function is to make us conscious of the resemblances and differences between any two or more ideas presented to it. Consequently its office cannot be performed unless there is presented to it

two ideas to be contrasted. But our perceptions are successive. One brain presenting only one idea at any instant of time is incompetent to provide the materials wherewith comparison can work. The act of *comparison* cannot, therefore, be done without the co-ordinate action of both brains. This, in healthy waking life is effected instantly, perfectly and unconsciously, by means of the power of co-ordination possessed by the two hemispheres. But if one hemisphere is sleeping, the faculty of "comparison" in the waking brain is thereby disabled from the exercise of its function of *comparing*.

Such being the action of the waking brain, does sleep present any conditions tha might be explained in like manner? Suppose the state of dream to be the slumber of one hemisphere only, the other being awake; may not this solve the problem? I suggest it merely.

In dream, believing shadows to be substances, ideas, things, incongruities natural and impossibilities realities, we are not surprised and reason is not shocked.

Nothing of these results presents itself when we are awake. Why?

Waking, the faculty of *Comparison* is enabled to do its work. It compares the idea with the reality, the shadow with the substance, the dream within with the impression without, the present picture of the mind with the stored knowledge of the past. The *differences* being thus discovered, the mind dismisses the ideal pictures as being the mere visions that they are.

But inasmuch as two ideas cannot be presented at the same instant of time by one brain hemisphere, the presence of the two ideas requisite to the process of comparison can be had only by the combined action of *both* hemispheres. Hence the usual inability of persons afflicted with hemiplegia to compare or reason accurately.

But, however this may be, it does not disturb the conclusion that the *seat of sleep* is in the ganglia at the base of the brain. That portion of the brain which directs the motions of the body sleeps always. Sleep reigns more or less perfectly in the central portions of the brain

that receive the impressions of the senses. Sleep is very partial in the hemispheres that form the duplex organ of the Intelligence, and *probably*—(for it is as yet only conjectural)—partial sleep prevails there, if at all, by the contrivance of slumber of the whole or parts of one hemisphere while the other is wholly or in part awake.

Such being the *Physiology* of Dream—so far as science has yet succeeded in tracing it—we proceed now to investigate its *Psychology*.

CHAPTER VII.

THE PSYCHOLOGY OF DREAM.

THE base of the brain being quite asleep, the central ganglia being partially asleep, the cerebral hemispheres, or some parts of them, being awake, we have the *physiological* condition in which the phenomena of Dream occur.

The first coming on of Dream is found at the moment of "falling asleep," before actual sleep has begun. *Then* we *are* conscious for an instant that we are dreaming—that the mental impressions are not external realities. But this consciousness is for a moment only. Either we start into waking life and the incipient dream is banished, or we fall into actual sleep and the condition of complete dream is established.

The process is worthy of note. You are engaged in some occupation; say, you are reading a novel. You "feel sleepy;" your eyes continue to pass over the page; your mind pictures the persons, actions and emotions of the story. By degrees the ideas become dim and shadowy and the *attention* flags. Then your mind wanders away to other scenes and persons which come into it uncalled for and even against your Will. But the power of that Will is lessening also. At first it is strong to banish the intruding thoughts; but as "the attention" relaxes more and more, so more and more does your Will cease to control the now thick-coming fancies. In that incipient stage of dream you know that these dream-pictures are only dreams. Never do you mistake them for realities. Soon the influence of sleep steals over the mind. The eyelids close and exclude the impressions of

the external world that are made through the sense of sight. The other senses are paralysed also. The creations of the brain take full possession of the mind. You are now *asleep* and *dreaming*.

If the condition of dream were not so familiar—if it did not occur to all of us, but only to some few persons in abnormal conditions, it would appear to the whole world as very wonderful. Suppose that dreaming were a faculty possessed only by persons of a certain constitution; that a Dreamer had told you how, when he was asleep, he saw and conversed with the dead, beheld distant places, lived another life, walked upon water, flew through the air, performed impossibilities, felt passions and sentiments, exercised intellectual powers far exceeding those of his waking life, should we not say of him that he was a madman or an impostor? Would he not be prosecuted by the High Priests of physical science as "a rogue and vagabond," and sent to prison by the Scientists or to an asylum by the Doctors?

But because all of us do these things nightly the wonder of them does not strike us. We do not pause to think how great the marvel is nor how it comes *to be*. May I venture to hope that the reader will be induced to look upon this marvellous mental phenomenon with some curiosity and hereafter to recognise, in the phenomena of dream, not only something to awaken curiosity, but something to command his serious attention, as being peculiarly fitted to reveal to the inquirer much of the mystery of Mind, its structure, its faculties, the manner of its action. The phenomena of dream open to us the path by which we may hope to make the first advances into the science of Psychology, for they are *facts* known to all, disputed by none, and which even the Materialists cannot deny. Happily, neither their vocabulary of abuse, nor their weapons of prosecution and persecution, can be directed against those who investigate the phenomena of dream. The existence of those phenomena cannot be denied, nor can they be explained away by attributing them to imposture or delusion.

How comes this transformation from sanity to insanity, wrought in a moment when Sleep has closed upon the mind the portals of the senses and left it, isolated from the real material external world, to revel in its own imaginary world?

Some rein that held the mind in check when awake has certainly been taken from it at the instant sleep occurs.

What is that lost rein—that paralysed power?

It is not *Consciousness*. We do not lose our individuality in dream. Never does the dreamer suppose himself to be another person. He may dream that he has assumed other characters,—that he is a king, or a beggar. But it is *himself* who has become a king and is *acting* king.

Nor is *the Will* absent. The dreaming mind is conscious of the exercise of its Will and believes that its commands are obeyed. But the Will is powerless to compel action. Its commands are *not* obeyed. In dream we *will* to speak, to run, to do what the body does freely when in our waking state we *will* to do. We *will* in dream as we *will* when awake; but the mechanism of the nerves that move the body refuses to obey the mandate of the Will, however strenuously exerted.

Imagination, on the other hand, is even more lively in dream than in our waking time.

The *Reasoning faculties* are not asleep, for we *argue*, often rightly—only we reason upon wrong premisses. We accept the visions of the mind—the ideas presented to the Conscious Self—as being *real* and then we reason upon them rationally. What Lawyer has not often dreamed that he was addressing a logical legal argument to an approving Court and, when wakened, remembering and reviewing that argument has found it to be without a flaw?

The *Emotions* are not extinguished when we dream. The presentation of imaginary incidents which, if they had been real, would have kindled the passions in waking life, rouse the self-same passions to equal if not to greater fury in dream. Nor is the *passion* fanciful. We do not

merely *dream* that we are angry. Very real and hot anger is kindled by the fancy-born picture of the dream, as the reader will readily discover if he recalls the sensation that attends upon being awakened at the moment of irritation in a dream. It is with the other passions and emotions as with anger. They are excited by the events of the dream precisely as if those events were real. Wherefore? Because the incidents appear to the mind to be *real.*

Thus by a process of exhaustion we may hope to arrive at some knowledge of the cause of the most remarkable and inexplicable characteristic of dream—that is to say, the *absolute belief we have in its reality during the enactment of the drama.* The inquiry cannot fail to throw a great light upon mental structure and upon the relationship of the mind (or soul) to the body and to the external world.

The first fact we learn, noting the action of the mind, when thus severed from communication with the external world, is its perfect independence, its entire unconsciousness of the loss of its customary informants, the capacity of the Conscious Self to create a world of its own and live a self-made life. If such a condition could be imagined as a mind continuing to live in a dead body, this phenomenon of sleep would show us how that mind could exist in the same state of activity as now, feel the same emotions of pleasure and of pain, and enjoy an existence, as real to itself although imaginary in fact, as is the actual existence of the living man.

But it teaches a lesson yet more important. If the mind can and does in fact thus live a life of its own when severed from the influences of the body by the temporary paralysis of a section of the brain in sleep, is not the presumption strong that this intelligent *something* (call it "Mind" or "Soul,") that does *not* sleep with the body but preserves an individual consciousness, that has *memory* and *a Will,* that can create a world of its own and live and act in that world with entire belief in its reality, that preserves the sense of pleasure and of pain, is not

the material brain merely nor a secretion of brain, but something other than the brain and of which the brain hemispheres are but the material mechanism? If the Conscious Self lives and works thus when the body is dead to it in sleep, may it not well be — (nay, does it not suggest even the probability?)—that when permanent severance by death is substituted for temporary severance by sleep, the same Conscious Self may continue to exist, possessed of other perceptive and receptive powers adapted to new conditions of a changed state of being? If not so, inasmuch as nothing perishes, but only *changes*, what becomes of this non-corporeal entity when the molecular body is resolved into its elements?

Why, then, are we in dream so credulous as to believe implicitly that the visions presented to us by the busy fancy are realities? Why do we accept impossibilities and incongruities without a question of their truth and scarcely with a sense of surprise? We have seen that it is *not* because the *reasoning* faculties are asleep,—for often they are very active in dream.

It is because we accept, as real and sense-conveyed and therefore as representing external objects, the ideas that are in fact created by the mind itself.

And wherefore do we thus accept them?

The answer throws a flood of light upon the mechanism of mind and the Mechanism of Man.

All our sensations are mental. Whether self-created within or brought from without by the senses, we are *conscious* only of the *mental* impression. That alone is *real* to us. That alone *exists* for us.

But by what faculty do we, in the waking state, distinguish between the self-created and the sense-borne ideas and impressions, so as to recognise the former as *ideal* and the latter as *real?*

For instance; you think of an absent friend and you have in your mind a more or less accurate picture of him. You see your friend in person and then another picture of him is in your mind, brought to it by the sense of

sight. Your perceptions of both are equally mental. Nevertheless, you readily distinguish them and call the mind-created image *ideal* and the sense-borne image *real*—meaning, by these phrases, that the former has no objective existence, but that the latter is actually existing without you.

By what process is this result obtained? What enables you so to distinguish them?

There is but one explanation. You are *conscious of the action of the senses*. You feel that your eye or some other sense is employed in the process. You have learned by *experience* that the actual presence of an external object is only to be accepted when the information of it is brought to you by one of your senses.

Thus it is that, when we are awake, the senses correct the action of the mind. Our capacity to distinguish the real from the ideal is due to the information given to us by the senses.

It is plain now why in dream we believe the ideal to be real. The *senses* being severed from the Mind by sleep, it has lost the instrument by which, when awake, it learns what is shadow and what substance. As the necessary consequence, *all ideas* appear to be real because all are *alike*. Inasmuch as all the pictures that throng the mind were originally brought to it by the senses, the Conscious Self has no means, when an idea is presented to it, of discerning whether it is a new sense-borne idea or only the revival of an idea already existing in itself. Hence it is that the Mind, deprived by sleep of the mechanism by which, when the body is awake, it is enabled to distinguish the ideas brought from without from the ideas created within, is *compelled* to accept its self-creations as realities. When these are combined in a connected drama, the whole is viewed by the Conscious Self as an actual adventure of the body and not, as in the waking time it would have been viewed, as merely a creation of the busy fancy. This is the rationale of the delusion of dream.

But the conclusion from this is that *there is a Conscious*

Self distinct from the brain whose action it contemplates and criticises.

That in fact we *have* Souls.

Or rather, that we *are* Souls, clothed with a molecular mechanism necessary for communication with the molecular part of creation in which this stage of being is passed.

CHAPTER VIII.

THE PHENOMENA OF DREAM.

SUCH being the *Physiology and Psychology of Dream*—that is to say, the conditions of the bodily and mental mechanism under which the phenomena of Dream are presented—let us observe those phenomena and from the facts noted endeavour to learn what light is thrown by them upon Psychology. A mental state so strange and abnormal cannot fail to assist in the solution of that great problem of the *Mechanism of Man* which it is the vocation of Psychology to solve. Is that Mechanism moved or directed by any but a self-generated force? Is it compounded of any but the tangible material structure? Does *Soul* exist and, if it exists, what is its relationship to the body?

A Dream is not a confused crowd of disconnected ideas. It is a succession of associated incidents, more or less orderly even when incongruous, improbable, or even impossible. The mind of the sleeper constructs a drama, often having many parts played by many persons; but always himself is one of the actors. *Suggestion* is the process by which the mind works in waking life—one idea suggesting another with which it had been at some past time associated and then another linked with that, and so forth. Thus in dream the imagination of the unsleeping mind presents to the Conscious Self a succession of suggested pictures. These are by the other waking mental faculties woven into a drama that is enacted before the Conscious Self with all its scenery and machinery! And this drama is not performed in

dumb show or in pantomime merely. It is a drama spoken as well as acted by the players—men, women or animal—who appear to the dreamer to play before him and with him their several parts as perfectly as they would have been enacted in actual life.

Hence we learn that in dream, as in the waking state, the mind acts in obedience to the laws of mind. The various mental functions are not exercised vaguely, but in more or less of orderly relationship to one another. The imagination presents pictures which are accepted as having been brought from without by the senses and therefore to the sleeper are as real as if they had been objects of sight. These ideal pictures, thus received as real, according to their various characteristics excite precisely the same emotions as they would have excited had they been real. But although the *picture* is imaginary the *emotion is actual.* We do not merely dream that we are angry or fearful; we *feel* actual anger and real fear. The reader may remember that often the emotion excited by the dream has continued to be felt after waking and when the dream itself has vanished. Indeed we know not how much the mental character of the day is influenced by the passions and emotions that have been stimulated by the dreams of the night, the brain excitement often continuing long after the cause of it has vanished and is forgotten.

The most wonderful of the many wonders that attend the condition of dream is the development of the *inventive* faculty so far beyond its capacity in the waking state. Reflect for a moment what that performance is. Every dreamer, however ignorant, however stupid, however young, performs a feat which few could accomplish in the waking state when in full command of all their mental faculties. Every dream is a story. Most dreams are dramas, having not a story merely, but often many actors whose characters are as various as on the stage of real life.

What does the dreaming mind?

Not merely does it invent the ideal *story,* it invents

also *all the characters* that play parts in it! Nor this alone. It places in the mouth of each of those characters speech appropriate to the character of each! Yet are all of these dialogues *invented* by the mind of the sleeper! In a restless night many such dream-dramas, each having its own distinct plot and actors, will be *invented by the dreamer* and a dialogue will be constructed by himself in which each of the actors will play his proper part. Strange as the assertion may appear, it is *a fact* which a moment's reflection will confirm, that the ignorant ploughboy in his dreams has made more stories and invented vastly more characters to enact them and constructed more appropriate dialogues for those characters than the most copious dramatist or novelist—aye, more than Shakespeare himself!

Another suggestive feature of the phenomena of dream is the *marvellous speed* of the mental action. Working untrammelled by the slow motions of the body, the dreaming mind sets at defiance all the waking conceptions of time. A dream of a series of adventures which would extend over many days is by the mind enacted in a few minutes. Yet all is performed—all is perfect—all is minutely perceived, said, and done—proving that when the mind is released to some extent from the slow mechanism of the body it has other very different conceptions of time. May it not be that time, as counted by our waking thoughts, is in truth the *ideal* time and that mental time, as conceived in dream, is the *real* time?

Not long ago I was enabled to apply some measure to this remarkable difference between the action of the mind independently of the body and its action when conducted through the slow-moving mechanism of the body. Called at the usual hour in the morning, I looked at my watch and in about two minutes fell asleep again. I dreamed a dream of a series of events that in their performance occupied what the mind conceived to be a whole day——events in which I was an actor and played a part that would have occupied a day in actual doing. Waking

suddenly with the influence of the dream upon me and the memory of it full before me, I looked at my watch again, thinking that I must have been sleeping for an hour and had lost the train. I found that, in fact, I had been asleep but *four minutes*. In four minutes my mind had passed through the history of a day, had invented that history and contemplated it as a whole day's action. It was in fact a whole day's body work done by the mind in four minutes. This may give us some conception of what must be the capacity of the Soul for perception and action when, if ever, there is a falling away from it of the cumbrous bodily material mechanism through which alone, in its present stage of evolution, it is adapted to communicate with the external material world.

Another phenomenon of Dream is *exaltation of the mental faculties* generally. Often there is an extraordinary development of special faculties in special dreams. A proof of this is found in the fact, already noted, that dream itself is an invention of the mind, whose then capacities far exceed anything of which it is capable when the body is awake and imposing upon it the conditions of its own slow, because material—that is, molecular—action. Not only do we *invent* the dream but we *act it* in thought. Not merely do we act in it ourselves, but we paint the scenery, construct the dresses and decorations, conceive the characters, and put into their mouths the language that would properly be theirs had they been beings of flesh and blood instead of shadows summoned by the fancy. Almost every faculty of the mind must be exercised upon such a work. Even the waking mental condition will not enable us to do this. If you doubt, try it. Set yourself to invent a dream and describe it on paper, making each one of the personages with whom you have peopled it talk in his proper character. Unless you are a skilful and practised dramatist you will find yourself wholly at fault. Remember that what you, in the full possession of your intellect, have failed to do, the most ignorant and stupid do

every night. You will then begin to measure this marvel of the exaltation of the mental powers attendant upon the condition of dream. If you indulge in the pleasant but dangerous practice of reading in bed, have you not often, on closing the book, extinguishing the candle and turning to sleep, continued, in a state of dream, to *read on*, believing that you were still reading the book. But what was the fact? Your mind was then composing all you dreamed that you were reading. It was inventing a continuation of the argument, or narrative, or whatever you may have been perusing when sleep stole upon you and you lapsed into dream. Have you never dreamed that you were preaching a sermon, or making a speech, or reading aloud, or composing music, or singing a song? Probably, in your waking state, you could do neither. In dream, your mind does it all without a conscious effort. Nor is it, as some have suggested, merely a fancy that the mind is so acting and not a positive action of the mind. If wakened while so dreaming, the argument, the speech, the song, will recur to the waking consciousness and become a positive memory capable of being subsequently recalled. Sometimes the dream vanishes after an interval and cannot be recollected by any effort of the Will, although it may recur in dream long years afterwards. In this manner COLERIDGE composed that beautiful fragment of a poem, "Kublai Khan." His mind had wrought the whole in a dream. Suddenly waking with a vivid impression of that dream, he grasped a pen and began to write the remembered rhymes of what had been a long poem, although composed in dream with the speed at which the mind works when untrammelled by the conditions of its material mechanism. He seized pen and paper and had set down the beautiful lines that have been preserved, when he was interrupted by some matter of business. On his return to resume the work, the dream had vanished and the world, to its great loss, has received nothing but the exquisite fragment we read now.

This mental exaltation, so frequent in dream, is recog-

nised in some familiar practices the *rationale* of which is, perhaps, not known to those who resort to them. In our schooldays a lesson was best learned by reading it when going to bed. It was then easily remembered in the morning. The advice so often given, when a matter of moment is presented, to "Sleep upon it" is a recognition of this higher mental action in sleep. The Mind seems in sleep unconsciously to work upon the idea presented to it and we wake with clearer conceptions and larger views of the *pros* and *cons*. I have known cases in which a doubting mind has thus been "made up" without conscious perception of the convincing argument.

Although in dream the mind works with such wonderful rapidity that the events of a day may be enacted in a few minutes, it has not quite lost its consciousness of the measure of external time. A desire to wake at a particular hour will often be followed by an actual awakening at that hour. Continued mental consciousness of the desire is unintelligible. But in what manner does the mind count the flight of a time whose measure is so different from its own conceptions of time?

Say, that you want to wake at six o'clock. You fall asleep with this impression upon the mind. But you fall also into the condition of dream and in that condition your mind is engaged in inventing adventures that are the business of a long day. Nevertheless, it preserves the consciousness of the time as it is in the external world and you wake at the desired hour. I can suggest no other solution of this than that the brain that dreams and the Conscious Self that perceives the dream are *two entities*, and that it is the Conscious Self (or Soul) that notes the flight of time in the external world, while the dreaming brain is revelling in its own conception of time as measured by the flow of its own ideas, and not in hours measured by the motions of the earth and moon. Another solution suggests itself. May not the *duality of the mind*, that action of the *double brain* which

explains so many other mental phenomena, account also for this?

Further; these phenomena of dream prove that to the mind "time" is more ideal than real; that the measure of it may differ in individuals and still more in races. May it not be that thus lives are equalised and that to the ephemeris its one day of life may appear as long as our lives appear to us? A life is practically as long or short as it *appears* to the mind to be.

Dreams are rarely, if ever, without foundation; that is to say, they are the product of some *suggestion*, although it may be difficult to trace them to their sources. Very slight suggestions suffice to set the mind in motion, as is proved by a multitude of recorded cases which the memory of every reader will present to him. The senses are not wholly paralysed in ordinary sleep. They carry to the mind impressions varying in power and acting with more or less of force according to the condition of the recipient ganglion. Sounds are heard and suggest dreams. But the loudest sounds are not always the most readily perceived. It is the unaccustomed sound that most startles the consciousness. Often a whisper will waken when the booming of cannon makes no impression upon the sleeper. The dweller in a noisy street sleeps soundly amid the roar of carts and carriages and is wakeful in the country by reason of the silence. Habit governs this as so many others of our sense impressions. We learn *not* to hear. Hence the influence of trifling impressions upon the sleeping senses when powerful ones fail to reach us. Very slight sense-impressions suffice to suggest the *subjects* of dreams. Then the mind, having taken the direction given by that impulse, forthwith employs its inventive faculties in the construction of a story based upon the faint lines of that suggested subject.

Even when awake we are ignorant what impulses set up trains of thought. We know not why this or that idea "comes into the head." The suggesting cause is often so slight as to be imperceptible. The brain is an organ of inconceivable sensitiveness. Its fibres

are so delicate that millions are packed into the circumference of a sixpence. Yet has each fibre its own function and each is a musical chord competent to catch and to vibrate to motions of the ether which the senses cannot perceive. It is probable (not proved) that in sleep, when not distracted by the claims of the nerve system and the thronging impressions brought by the senses, these brain fibres are vastly more sensitive and moved by vastly slighter action of the ether than in waking life.

In Dream we do not lose the consciousness of our own identity. We retain our individuality. You dream often that you are *something* other than you are, but not that you are some other *person*. Does not this indicate the existence of an entity, other than the dreaming brain, which preserves its oneness and its sanity while the material organ with which it is associated and through which it communicates with the external world is, as it were, forgetting its reason, its experience and itself and so becoming in very truth *insane*.

And here we touch upon the most perplexing characteristic of dream. We are conscious of existence, of individuality, and in a slight degree of sense impressions. We have ideas, reflections, emotions, sentiments, passions. We can invent stories, construct characters, endow them with dramatic language, paint ideal pictures, make speeches, compose music and conduct a train of argument. But withal we are not *rational*. We can *think* wise things, but we *are* the veriest fools of nature. Every mental faculty is awake and alive—save one—namely, the faculty, whatever it be, that enables us to distinguish between fancy and fact, between the possible and the impossible, the congruous and the incongruous; the faculty, in brief, which separates sanity from insanity.

In dream, with rare exceptions, we are not conscious that we are dreaming. Fancies are accepted as facts, shadows as substances, the ideal as the real. And they are so accepted without suspicion or doubt. We *see* them, *hear* them, *feel* them. Nothing in our actual waking life is more real to us than are the *un*realities of

dream at the moment of dreaming. Probably there are few readers who have not occasionally dreamed that they were dreaming, and while noting the drama have said to themselves "this is a dream." But these are rare exceptions to the rule that a dream is accepted by the sleeping mind as an event of actual occurrence and the scenes and persons implicitly believed to be objective and not subjective; that is to say—as being then actually existing in the external world.

So believing, what are the materials to which this implicit credence is given? Here we arrive at the most perplexing of the problems presented by the phenomena of dream.

We accept without hesitation, or questioning, or even a suspicion of its unreality, that which in waking life would have been banished instantly as "the baseless fabric of a vision." We believe implicitly in objects and actions which, when awake, we should have pronounced to be impossible. Moreover we contemplate the wildest conceptions of the fancy without the slightest consciousness of their incongruity or folly. Nothing is too impossible or unreal for acceptance by the dreamer as *facts* that cause him neither surprise at their presence nor wonder how they come to be.

What is the change in the mental condition that has wrought this mental revolution — not slowly and by degrees, but wholly and in a moment? At this instant, the mind is competent to discern the ideal from the real, the shadow from the substance, the practical from the impossible. At the next moment it can distinguish neither—all appears to itself to be equally possible, probable, real. Starting from sleep, the normal state is recovered, but not so speedily as it is lost. The dream itself sometimes continues after the senses are restored. The memory of it remains longer and its unconscious influence longer still. Passions and emotions which the dream has kindled do not subside at once. Often the agitation continues to disturb the mind long after the cause of it has vanished from the memory.

Two answers present themselves.

1. This marvellous character of dream may be consequent upon the severance of the mind from its communication with the external world by reason of the partial paralysis of the senses.

2. Some one or more of the mental faculties may be sleeping while others are awake and active.

The first is the solution commonly accepted. It is contended that the senses correct the vagaries of the mind; that we are enabled to distinguish between the creations of the mind and the impressions brought to it from the external world solely by the consciousness we have, when we are awake, of the action of the senses and the knowledge we have that the impressions borne to us by the senses are *objective*—that is, produced by something existing without ourselves. If, for instance, you close your eyes and give rein to the imagination, streams of ideas—pictures of persons and places—flow before the mind's eye. You do not mistake these for realities. You are conscious that they are born of your own brain. Had you been asleep and dreaming, instead of being awake and using your senses, you would not have discovered that these mental pictures were *subjective* only. You would have accepted them implicitly as *objective* impressions brought to you by your senses.

This, however, explains but a portion of the phenomenon. Even if it be a true solution, it accounts only for the acceptance in dream of the ideal as real. It leaves wholly unexplained the more remarkable feature exhibited in the entire unconsciousness by the dreamer of the absurdities and impossibilities presented in the dream and the absence of surprise and wonder how such things can be. In the waking state, the mind would reject them instantly as the illusions they are. Hence the reasonable conclusion that, in addition to the sleep of the senses and of the *will*, some part of the material mechanism of the mind is also sleeping or its activity is suspended during dream.

The investigation is of serious moment, for it raises

other questions of even greater importance. If the explanation be sufficient, it determines some moot points in Mental Physiology. It proves that the mental machine, the brain, is *not* one and indivisible—that the *whole* brain is not employed in each mental act—as contended by Dr. CARPENTER.

To what mental faculties are we indebted for our waking consciousness of incongruity, impracticability, absurdity, irrationality? Obviously these faculties must be slumbering in dream. To *their* temporary paralysis this most remarkable phenomenon of dream is certainly due.

The popular notion is that *reason* is the slumbering faculty. We talk of reason as being the special attribute of Man. In fact there is no such faculty. There is a mental process we call reasoning; but it is performed by the joint action of various mental faculties. One presents the things to be reasoned upon; another compares them and presents their resemblances and differences; a third enables us, by the process we call *reasoning*, to apply these resemblances and differences to some third subject and thus from the known to predicate the unknown.

It is familiar to every reader that this process of reasoning is not always suspended in dream. On the contrary, it is sometimes abnormally active. We *reason* rightly often, but on wrong premisses. What we are unable to discover in dream is the unreality of the subject matter upon which we are reasoning.

If, for instance, you dream that you are making a speech or preaching a sermon. In your dream you pursue a logical argument. But you found it upon imagined facts that are untrue and improbable, which the waking mind would not entertain for a moment, but which in your dream you accept as true and implicitly believe to be real.

We shall, perhaps, arrive at the solution of this problem by the process of exhaustion.

The faculty of imagination, that shapes to the dream ideal pictures of things, is not sleeping. The faculties

that perform the process of reasoning are not sleeping. *Comparison*—the power to compare the ideal with the real—alone is wanting. We mistake the shadows of the mind for substances. We accept the brain-born visions as realities. Why? *Because we are unable to compare them.* In brief, Comparison is the faculty, paralysed in sleep, whose absence causes the *credulity* of dream.

Of this fact there can be no doubt. But a very formidable difficulty here presents itself. How and why is it that this faculty alone is found to slumber when the greater part of the mental mechanism is awake and active?

It has been one of the most perplexing problems of Psychology. A solution of it has occurred to me which I submit to the consideration of the reader, but as a *suggestion* merely. It is too novel to be offered as anything more than a suggestion.

Each mental faculty can perform but one act at the same instant of time. It is one of the conditions of existence here that all consciousness shall be in *succession.* Hence, indeed, our conception of *time.* If any intelligent Being could obtain many perceptions simultaneously (not in succession) to that Being there would be no *time,* in our sense of the term. But the process of comparison involves the contemplation *together* of the two things (or ideas of things) to be compared. This difficulty is removed by the *double brain.* Each brain presents one of the ideas to be compared and upon these the faculty of comparison employs itself, discerning their resemblances and differences. If so it be, the obvious cause of our incapacity to discover the absurdities of dream is the partial paralysis (or sleep) of one of the two allied mental faculties that present the ideas of objects and the consequent incapacity of the faculty of comparison to discharge its proper function of informing us what of our mental impressions are real and what illusory.

And this raises a curious question as to the relative functions and operations of the *two brains.* In profound slumber, when both brains are sleeping, there is no con-

sciousness. Time is annihilated to such a sleeper and awakening seems to follow immediately upon falling asleep, although in reality many hours may have passed. When the brain is sleeping but partially, there is some consciousness of time in sleep and of the lapse of time upon awaking. Is such partial sleep the slumber of *one brain only* and are these phenomena of dream due to the action of that one brain deprived of the correcting influence of the other brain? Is not the failure of the faculty of *comparison* to show us in dream that our mental impressions are subjective and not objective consequent upon the absence of aid from the sister faculty of the other brain? Comparison is the foundation of the process of reasoning. It has been noticed that persons suffering from hemiplegia—that is, from paralysis of one brain only—often lose the power *to compare* and consequently the capacity for reasoning readily and correctly. May it not be that a similar condition is produced by the temporary paralysis of the brain in sleep? As already stated, the power to *reason* is not absent in dream. We often reason elaborately and well, accepting the ideal pictures as real incidents. We take as objective facts what are merely mental impressions and thus build a correct argument on an incorrect assumption. The reasoning is right but the basis of it is wrong. Question each mental faculty in turn and it will appear that but one faculty is at fault in dream—namely, *comparison*. We are unable to discern the difference between the mental and the sensual impression—the self-created and the sense-borne idea—*because we are incompetent to compare them* and it is by comparison alone that we can distinguish the false from the true. I throw out this (but as a suggestion merely) to Mental Philosophers and Psychologists.

Indeed, the fact that we have *two* perfect brains, with every mental faculty in duplicate, (as contended by Sir HENRY HOLLAND and now conclusively established by the experiments of BROWN-SEQUARD and Professor FERRIER,) has opened a new field to the Mental Philosopher and Psychologist. It must have the most

intimate relationship, not to the phenomena of Sleep and Dream alone, but to all the phenomena of Mind. In this great fact will doubtless be found the obvious solution of many problems hitherto insoluble. Foremost among those philosophical puzzles has been the instantaneous lapse of the Mind into *insanity* in dream, and the no less marvellous manner in which, upon waking, we pass almost as quickly out of that insane condition into sanity.

The painful affection called *nightmare* is marked by an undefined terror, accompanied always with a sense of suffocation, which appears to the patient to be caused by pressure upon the chest, a sensation converted by the dream into some hideous object from which he strives in vain to fly. This sense of weight is in popular belief the direct result of an overloaded stomach. The process is indirect. The nerves that conduct the work of digestion are affected by the pressure of the undigested food. These, by a reflex action at the nerve centre, influence the nerves that maintain the action of the heart, which consequently beats irregularly. The irregular action of the heart, pumping the blood by irregular strokes, produces the irregular action of the brain. So, likewise, the disordered nerves of the stomach disturb by sympathy the nerves that keep the breathing apparatus in regular action. Hence the sense of suffocation; hence the impression of weight which the dream converts into the hideous phantom of a fiend who sits upon the chest and deprives the sleeper of the power to move or to shriek, strive though he may, and overwhelms him with an agony of terror.

But there is a still more remarkable proof of the manner in which dreams may be moulded by external influences. It is not presented by all sleepers, but it may be observed in many and especially in children. Mark a sleeping child. Note upon his features the expression of fear or of anger—the flitting frown, the contracted lips. Listen to the subdued scream, the stifled moan. These are the outward indications of the

troubled dream that is being enacted within. While these signs are upon him, gently place the open hand upon the forehead. Sometimes in a moment, sometimes after many minutes, you will see the frown fade, the lips relax, the expression of pain, or rage, or fear, pass away. Gradually a smile steals over the face and breaks into a laugh. After a few experiments you will discover that by touching certain parts of the head certain characteristics of the mind are expressed by the body. We have no certain knowledge that this is the external language of a dream then actually floating before the mind within, because the sleeper cannot tell us at the moment what is passing in his Mind. But there can be no reasonable doubt that, in some unknown manner, the touching of the head without excites the brain within and sets up an action, not in the whole brain, but in that part of it only upon which the finger is placed, and thereupon the dream is modified by the new influence affecting it. From experiments often made I am satisfied that dreams may be thus directed with many sleepers, probably with all. If this should be confirmed by the observation of others, it may obviously be turned to practical use for the relief of those painful dreams so common in sickness and in certain conditions of the digestive organs. Through this simple process we may excite to action the parts of the brain that are the prompters of the more pleasing emotions.

As yet we can only conjecture *how* the effect is produced. But I venture a suggestion. In sleep, as we have seen, portions of the brain are awake and working without the control of the Will. Whatever excites any part of the brain sets it in action. There is much evidence that when one human being comes within the range of "*the Nerve Atmosphere*" (so called by Dr. RICHARDSON) or the *Psychic Force* (as I have proposed to term it) of another human being, the nerve force of the one influences the nerve force of the other, either by attraction or repulsion, as the case may be, according to some law, probably of polarity, that yet remains to be investigated. This Force is ever flowing from the nerve centres to the extremities

of the nerve system and to varying distances beyond the material structure. Contact either attracts the nerve force from the patient to the person touching or the nerve force flows from the person touching to the patient. We do not yet know the laws by which this attraction or repulsion of nerve force is governed. The direction in which they should be sought is probably that of magnetism. So far as the facts point, I am inclined to the conclusion that in the cases where the mental organs can be excited in sleep by the touch, the result is not produced by an influence transmitted from the operator to the patient, but that the operator attracts the nerve force of the patient from the nerve centre at the base of the brain. The force thus attracted passes through the fibres of the brain and in that passage excites to action the parts through which it passes and consequently the mental organ to which that portion of the brain is assigned. This solution will be found hereafter to receive strong confirmation from some phenomena of Somnambulism that will then come under notice.

Two cases will suffice to illustrate the Phenomena of Dream. As will be seen hereafter, there can be no doubt that, under some very rare and as yet unknown conditions, the human mind has a power of perception far beyond the range of the senses and apparently through some other medium to which distance and the interposition of molecular matter are no impediments—conditions such as those under which the Soul might be supposed to perceive when severed from its alliance with body. If this condition occurs sometimes in sleep, as in other abnormal states of the organism, the mind would be then actually *perceiving* and not merely *dreaming*, and thus the few recorded cases of perceptive dreams would be accounted for, such as the following, narrated by Dr. ABERCROMBIE in his famous treatise on "The Intellectual Powers."

The gentleman to whom I am indebted for the following case was born in Madras, and was brought from thence at the age of three years to be educated in England, where he grew up without

the least recollection of anything relating to Madras, or to his parents, who remained in India. At the age of fourteen he dreamt that he saw his mother sitting in the dress of a widow, and apparently under deep distress; and he gave a distinct account of the apartment in which he saw her, with the position of various prominent articles of furniture, which he described minutely. It afterwards turned out that his father died about the time of the dream; and that he had correctly described a drawing-room in the house at Madras in which his mother was in the habit of sitting. This last feature of the case, I think, we may fairly consider as the revival of an old impression respecting the drawing-room, though it had long ceased to be an object of memory; of the other part I do not attempt an explanation.—(p. 219.)

A more extraordinary instance is reported by the same author, which strongly supports the explanation suggested above, and the more that nothing came of it. It is obviously a case of mental sympathy, frequent enough between persons who are near one another, the remarkable feature of *this* case being the distance by which the sympathetic minds were separated. But not knowing the *modus operandi* of such perception, it is impossible to say to what extent the process may be independent of the material conditions of space and substance.

An instance of a very singular kind is mentioned by Mr. Joseph Taylor, and is given by him as an undoubted fact. A young man who was at an academy a hundred miles from home, dreamt that he went to his father's house in the night, tried the front door, but found it locked; got in by a back door, and finding nobody out of bed, went directly to the bedroom of his parents. He then said to his mother, whom he found awake, "Mother, I am going a long journey, and am come to bid you good-bye." On this she answered, under much agitation, "O, dear son, thou art dead!" He instantly awoke, and thought no more of his dream, until a few days after he received a letter from his father, inquiring very anxiously after his health, in consequence of a frightful dream his mother had on the same night in which the dream now mentioned occurred to him. She dreamt that she heard some one attempt to open the front door, then go to the back door, and at last come into her bedroom. She then saw it was her son, who came to the side of her bed and said, "Mother, I am going a long journey, and am come to bid you good-bye;" on which she exclaimed, "Oh, dear son, thou art dead!" But nothing unusual happened to any of the parties.—(p. 215.)

These are the principal phenomena of Dream and the study of them cannot fail to throw a flood of light upon mental physiology and psychology. In them we are enabled to view the operations of the mind and the relationship of soul and body under conditions that reveal to us parts of the Mechanism of Man that are wholly concealed from us in the normal state of that relationship. The strange neglect of such an obvious means of knowledge is doubtless due to the fundamental error that has excluded Mind and Soul from the category of physical sciences and consigned them to the hopeless region of metaphysics, persisting in their pursuit by abstractions, argument and conjecture and refusing to study them by investigation of *facts*, as the other sciences are now investigated. If the phenomena of dream were strange and rare as are those of somnambulism they would as much excite our curiosity and strike us with equal amazement. But they are not wondered at only because they are familiar. If dream, instead of being common to us all, were developed only in a few, the persons subject to it would certainly be denounced as impostors and probably prosecuted as "rogues and vagabonds." But the very facility for examination of the mental condition of dream should induce those who really desire to promote the most important of all knowledge — the knowledge of ourselves, our constitution, our mechanism and our destiny —to seek it where we may most reasonably expect to find it—in the wonderful condition that nightly severs the Mind more or less from its connection with the body and enables it to work by its own impulses, without the aid or incumbrance of the senses and without the directing power of the *Intelligence and its Will.*

Always and everywhere Superstition has dallied with Dream. The notion that dreams are sometimes *prophetic* is still so widely diffused and so often made the theme for gossip and material for fiction that there are few, even among the educated, who can wholly divest themselves of the influence of a startling dream.

Neither evidence nor argument has been adduced to support this claim of the sleeping mind to prophetic power. There are no natural means by which *new* impressions can be conveyed to the mind in sleep and we have already seen that in this condition the mind is less, not more, capable of reasoning out the probabilities of the future.

It will be said, perhaps, that prophecy is not an act of reason but a gift of inspiration; that the prophet only *speaks*—his are not the *thoughts* uttered. But in what manner is this gift made more easy by sleep? It *should* be more active in the waking state. The prophetic dream is either a creation of the sleeping mind or it is brought into the sleeping mind by a miracle. It is highly improbable that the mind should have superior wisdom when in its most imperfect condition. It is still more improbable that a miracle should be wrought for such a purpose. Moreover, the information alleged to be imparted thus is always of something *to come*, while there is no instance of a revelation in dream of things that *have been* done in the past and therefore capable of being tested. A gift to tell what *has been* would surely be more easy than a gift to tell what *is to be*. It is strange and suspicious than none are seers of *the past*.

The widespread notion of prophetic dream is probably based upon a belief, almost as widely diffused, that in sleep the Soul can and sometimes will pass out of the body and obtain information by impressions received directly by its own vastly extended power of perception, without the intervention of the material mechanism of the senses. It is not uncommon to hear an assertion, when a place is seen for the first time, that there is a memory of the same place having been seen before and there are some curious reports of cases of this kind that deserve to be investigated. But many of these apparent marvels may be accounted for by memories of which the link has been lost. When the multiplicity of dreams that occur in a lifetime are taken into account, occasional resemblances of external objects or events to some portions of former

dreams are by no means improbable. The same explanation applies to many dreams that are supposed to have been prophetic because something afterwards occurs bearing some resemblance to the dream. Memory also has a large share in these recognitions. Memory may exist without recollection. Thousands of things are stored away in the memory, which we cannot recal even if we try to do so, but which come back to us suddenly, at unexpected times, for no cause that we can trace although certainly suggested by something associated with the revived idea. Thus the eye may well recognise a strange place as having been seen when, in fact, the memory has unconsciously received some picture of it, or of some place very like it, and which is now revived by the suggestion of the place itself.

Somnambulism, although commonly supposed to be a phase of sleep, has really no relationship to it. Its physiological and psychical conditions are entirely different. There is the aspect of sleep, but nothing more. The somnambule is not sleeping, for he performs often the work of his waking life although with certainly closed eyes and probably sealed-up senses. The somnambule has no memory of the doings of either mind or body during his trance existence. The sleeper is conscious at the time of dreaming and remembers his dream. As there is Somnambulism without sleep, so there may be Somnambulism *in* sleep. Indeed, with a constitutional tendency to it, the state of sleep is so favourable to the inducement of the condition of Somnambulism that the one may readily lapse into the other. But for these phenomena the reader must turn to the chapters that treat of Somnambulism.

Many of the authentic cases of cognizance of the distant in dream may be thus accounted for. The sleeper has lapsed into somnambulism, and is then, in fact, a somnambule and not a dreamer.

Dream is not merely a reproduction in new combinations of impressions made upon the mind unconsciously as well as consciously, forgotten as well as remembered.

The fact must also be taken into account that in dream mental action is vastly increased and the flow of ideas so accelerated that, if life be measured, as it should be, by the number of ideas that are presented by the mind, the life of dream is vastly longer than waking life. If the ideas that would occupy many waking hours are compressed into a sleep of one hour, the whole dream-life must have presented to the mind infinitely more ideas than the whole waking life. The wonder would be if, of this vast multitude, many were not found to be coincident with events of actual occurrence afterwards. A further explanation of dreams that appear to convey information from some external intelligence, or to be prophetic, will be found in this—that many things impress themselves upon the mind when we are not giving attention to them, and, therefore, unconsciously to ourselves. We thus lose some of the links of association which, if they had been perceived, would have revealed to us the connection between the dream and the incidents to which the dream related, and which, if we had known, would have stripped the coincidence of its marvellousness. Yet a further explanation will be found in the exaltation of the mental faculties in dream, which enables us often then to perceive, more clearly than in our waking state, ideas and chains of ideas and to "think them out" more correctly than is practicable in waking life, when the influx of external impressions represses to some extent the independent action of the mental faculties.

There is a popular belief that in sleep the Soul sometimes quits the body and personally visits the scenes and persons of the dream which, in truth, is not all a dream. This is nothing more than a poetical fancy. There is no evidence of such journeying. The proof of it would be if the dreamer could tell us of actual occurrences passing elsewhere at the moment of his dream. There is, indeed, abundant evidence of *mental communion* in sleep, and this might readily suggest a dream having relation to the distant person. But there is no satisfactory evidence of a positive *per-*

ception of an event then passing far off. It is remarkable, indeed, that dreams to which this solution has been applied usually refer to something that is *to be*, and not to events actually happening at the moment and which could be positively *proved* by reference to the persons whose sayings and doings are supposed to be seen, heard and reported. The same remark applies to this as to prophecies and supernatural communications generally. Why do they not tell us of something that *is doing* far away or something that *has been done* in the distant past? These would at least be capable of verification. Surely the power that could prophesy the future—the dreaming that foreshadows what *is to be*—could with vastly more ease tell us what *has been* done or what is *being done* elsewhere at the moment of its exercise! Why is so simple a test invariably avoided?

Sympathetic dreams admit of another explanation. Two persons dream the same dream at the same time. They may be in the same room, in the same house, or far apart. The two dreams are not always identical in their details, but the main incident is substantially the same in both. The instances of this are too many to be accidental coincidences. The explanation is to be found in that *mental sympathy* the existence of which cannot be doubted by any person who investigates psychological phenomena and which is already treated of here (*ante*, p. 22). The limit to which that sympathy extends is not yet measured. We know only that it is not bounded by the narrow range of the senses. Perhaps it is a purely *psychic* faculty. If it be, we know as yet so little of the nature and powers of the Soul that it would be vain to speculate in what manner the operation is performed. But we may be assured that, whatever the capacity of the Soul when we are awake and the external world is, as it were, pressing in upon us at all sides and occupying more or less of the entire mental mechanism, those powers are vastly extended when the material mechanism is at rest, and the sleepless

Soul alone is busy. If there be, under *any* conditions, communication between minds without the intervention of the senses, we may reasonably conclude that these would be greatly facilitated in the time of sleep, when the Soul is less subjected to the restraints of that mechanism by means of which it communicates with the *material*—that is to say, the *molecular*—world.

The proofs are many that dreams may be suggested by the influence of other minds in unconscious communication with the sleeper. If the finger be placed upon the head where, according to the phrenologists, is the seat of the mental faculty of mirth, a smile will be seen soon to steal upon the sleeping face. Touch in like manner the asserted seats of combativeness or destructiveness, the features assume an aspect of excitement which will be removed by touching the asserted seat of benevolence. The explanation of this phenomenon is that the brain, thus excited to action, suggests and moulds a dream in accordance with the emotion so denoted. This fact has been advanced by the Phrenologists as proof that they have rightly mapped out the brain. But such is not the necessary conclusion from the fact. It may well be that it is the *mind,* and not the finger, of the waking operator that directs the mental action of the unconscious sleeper. The waking *Will* possibly controls the sleeping Will. We know that it does so in Somnambulism and there is no reason why it should *not* do so in ordinary sleep.

But, explain it as we may, the fact remains.

Direct suggestion of dream by external causes is less disputable. So sensitive is the mind in sleep, when relieved from the thronging impressions of the senses, that impressions so slight as to be wholly unnoticed in our waking state are doubtless perceptible, and operate as *suggestions,* when we are asleep. A slight touch or sound often serves to change the entire character and direction of a dream, the mere sound giving rise to the train of new ideas thus suggested. The surest method of banishing an unpleasant dream is to turn in the bed.

Continuance in the same posture preserves the same conditions of brain action and consequently of the same dream, which is disturbed at once by directing the flow of blood to another part of the brain. If a sleeper is seen to be agitated in his sleep by painful dream, exhibited in moaning, restlessness and expression of distress upon the features, a remedy may be found in gently moving the head into another position—if the body cannot be moved and it is not desired to waken.

It is said that musicians are very prone to the composition of music in dream. It was thus that TARTINI wrote his "Devil's Sonata." The most unmusical are often haunted by scraps of tune that no effort will banish. Airs are composed in dream which are remembered after waking. Perhaps it is not that music is more the subject of dream than other mental creations, but it is the most capable of being retained by the mind and expressed after the dream has vanished. My own experience of this capacity of the dreaming mind has been to myself very surprising; but perhaps the like may have occurred to others, although not recorded. Some time ago I dreamed that I was present, and heard as well as witnessed, the performance of an entire opera of my own composing. The strange part of it was that I am not a musician and never composed a bar of music in my life. I have a bad musical ear and no musical memory. Yet did my utterly unmusical mind in the dream compose the whole of an opera in two acts, overture and all, with a full band and half a dozen characters, each acting his own part, and the stage, the scenery, machinery and decorations, apparently as perfect as any I have ever beheld and enjoyed at Covent Garden. Certainly it was not a mere dream of a dream. What other solution is there than this—and it is sufficiently marvellous—that my mind, free to act without the incumbering trammels of the sleeping body and exercising its unfettered faculties far beyond their capacity in waking life, had made me a musician, a dramatist, an actor, a painter—for all these that mind

was in the invention and performance of that dream? If that Mind (or Soul) be nothing more than the material form, or a function of that form, how comes it that it is more active and its faculties are more exalted, when the body, of which it is said to be a part, is asleep? If Mind or Soul be a part of the body, or, as the Materialists contend, a mere *function* of the body, it ought, according to all known laws of science, to be sleeping with the body, or at least its activity and capacity ought not to increase in proportion as the activity and capacity of the body decrease.

I have here used the term "Mind" because it is familiar to the reader and any other name would mislead by the prejudices that attach to it. But I must be understood as intending by that term *the thing*, whatever it be, which, in the Mechanism of Man directs and controls it intelligently, whether it be called *Soul* or *Mind*, and if it be a distinct entity, as Psychology contends, or only the product of the molecular structure, as the Materialists assert. This, indeed, is the great problem of the age, to be solved, not by dogmatic *assertion*, but by scientific *proof*.

There are many other Phenomena of Dream of less interest or importance, the description of which would occupy many pages. But those above reviewed will suffice for the purposes of this treatise.

CHAPTER IX.

THE PHILOSOPHY OF DREAM.

DREAM is essentially a psychological condition and therefore an important study for the Psychologist, for in dream we learn not only what is the mechanism of the Mind but also much of the manner in which the mental operations are performed. Dream teaches us what recent physiologists have by their experiments confirmed—that the Mind is not structured as one homogeneous entity, the whole of which is employed in every mental act, but that it is a machine composed of parts, each of which has its own special function, exhibited in the various expressions which we call ideas, sentiments and emotions.

It is conclusively established that the *Individual Self*, in its normal state of relationship to the body, can receive and convey impressions only through the medium of the brain. Remove the brain and *mind* ceases to be, although life may linger long. Extract a part of the brain and a part of "the mind" goes with it. In fact the Conscious Self has lost wholly or in part the mechanism through which alone it can act upon and be acted upon by the external world. This result is sometimes obscured by the fact, not sufficiently recognised by the Physician and the Mental Philosopher, that we have *two brains—two organs of Mind*—one of which can act alone when the other is wholly or partially disabled. If a Dream be analysed, it is not difficult to trace the action of each separate mental faculty. The imagination supplies the picture, which we mistake for a reality because we have lost the means by which, when

awake, we distinguish the mere mental creation from the impressions borne to us by the senses. Thereupon mental action follows, precisely as if the ideal picture had been *real*, as it is believed to be. The other mental faculties are called into play by the drama of the dream as they would have been by a living drama. It is not an *imagined* anger, or fear, or hate that we feel in dream. The passions, emotions and sentiments are actually excited, as they would be by the same objects presented when we are awake; only they are kindled by shadows created within and not by substances existing without.

But Psychology will gather from the phenomena of dream some very important conclusions. In dream, the Mind is awake and at work, but it works wildly, insanely, without self-control. Something is absent or partially paralysed in sleep that controls its action when we are awake. That absent controlling and directing force is the WILL.

What is THE WILL?

The WILL is the expression of the SELF—of the INDIVIDUAL BEING. It is the "I"—the YOU—that commands, controls and directs thought and action.

This Conscious Self, which possesses the power we call the *Will*, is not, and cannot be, the material brain, nor the product of the brain, as the Materialists assert, for we see that in dream the brain is in part awake and working without the assistance or control of the Will; proving that *the Self*, of whom the Will is the expression, is *not* identical with the brain.

Moreover, the Conscious Self, although taking cognizance of the action of the mind in dream, is nevertheless unable to direct its action; thus affording another *proof* that the Conscious Self and the material molecular mechanism are not identical.

The phenomena of Dream, then, are the *facts*, first presented in the scientific investigation of Psychology, from which we derive *physical proof* of the existence of a *Soul in Man*, not as a vague theory merely, but as shown by the positive *evidence of his mechanism in action.*

CHAPTER X.

CONCLUSIONS.

THIS view of the Physiology and Psychology of the very familiar but very marvellous condition of Sleep and Dream seems to conduct the inquirer to some conclusions, whose importance and interest it would be impossible to exaggerate. If there be any truth in them, they point directly to revelations of the actual structure of the Mechanism of Man, hitherto taught as a dogma and accepted as a faith, but for the *proof of which by Science, as a fact in nature,* evidence has been wanting.

The condition of Sleep indicates a *dual* structure—that the Conscious Self and the body are not one, as the Materialists teach, for when the body sleeps the mind (which is merely the Soul expressing itself through a material mechanism) is awake and often more active and more able when it is thus partially released from the burden of the body.

In sleep, the phenomena of dream exhibit this independence of the body yet more powerfully. The mind lives a life of its own, with its own measurements of time and space, so different from those to which it is limited by the material structure of the body.

Self-consciousness is preserved in dream, while the mind is inventing a whole drama of events and persons, so that we contemplate the work of the mind as if it was something existing without ourselves. This proves that the contemplating consciousness is something other than the thing contemplated. The "I" that views and remembers the action of the brain (which is the material organ of

the mind) cannot be the brain itself, nor the mind itself, but must be something distinct from either, although intimately associated with both.

That conscious and contemplating something is the *thing*—the entity—the "I"—the "You"—the being—the individual—which may be called "Soul" or "Spirit," or by any other name—but which *thing* we intend to designate when we use either of those terms.

These phenomena go far to prove that Man is a "living Soul" clothed with a material body—that this Soul is in fact the person—the individual—the being—of whom the molecular body is but the incrustation. May not what we recognise as "body" be the atoms agglomerated into molecules at the point of contact with the molecularly constructed world in which the present stage of existence is passed and to which the beings "I" and "You" must needs be adapted.

True it is that the phenomena of dream, while throwing so much light upon the structure of the mind and the manner of its action and going far to prove the *being* of Soul, does not impart to us any knowledge of the *structure* of Soul. But we may learn this much. Although it is imperceptible by any of our senses, which are constructed to perceive only that one of the countless combinations of atoms we call *molecular*, it is not therefore unknowable, as the Materialists contend. The existence of Soul can be *proved* in precisely the same manner as the existence of electricity, magnetism, and heat are proved, which also are imperceptible by our senses but not therefore unknowable. We learn *the fact* of their being by their operations upon the molecular structure our senses are constructed to perceive. In like manner we learn something of their qualities and powers. The process of proof of the physical and psychic forces is identical. That which is admissible evidence for the one is no less admissible for the other. To what extent it goes in the way of proof of the existence of Soul is, of course, a fair question for argument and investigation. My contention is only that the inquiry

"If Soul be?" cannot be summarily disposed of by any such dogmatic dictum of Physicists as that Soul, not being perceptible to our senses, is incapable of proving its existence and consequently is, and must ever remain, *unknowable* and that, therefore, Psychology is a vain pursuit and an impossible Science.

In the phenomena of dream we find abundant *scientific proof* of the existence of an unsleeping something other than the sleeping molecular structure. The individual "I" preserves its consciousness of identity, its sense of oneness, in dream and that *something* cannot well be the body contemplating itself—at once the actor and the spectator. Reason thence concludes that one entity must be contemplating another entity, and Psychology contends that this contemplating entity, that wakes and dreams when the body is asleep, is what has been called by many names, but which here is designated as "Soul" simply — without affirming anything of its structure, its nature, its qualities, or its destiny.

BOOK IV.

THE PHENOMENA OF DELIRIUM AND INSANITY.

CHAPTER I.

DELIRIUM.

DELIRIUM has been termed a temporary insanity.

But it presents most of the characteristics of dream and some only of the features of insanity. The Will is paralysed, as in ordinary dream. The patient has no control over his mental actions. He has lost the command of his thoughts. Disease has thrown him, *waking*, into very nearly the same mental condition into which sleep has cast the sleeper. In delirium the patient partially acts his dream by mutterings and motions, *believing* that he is acting it entirely. In sleep, awakening is easily and speedily produced and there is a rapid recovery by the Conscious Self of the reins over the mental faculties which slumber had caused it to drop. In delirium, the awakenings from the state of dream are few and far between. In sleep, each awakening is usually followed by a new dream. In delirium, the dream is continuous.

Delirium usually commences with an *exaltation* of the mental powers. It passes afterwards into the depressed condition that in fever follows a protracted period of brain excitation. But at the beginning, when the blood is

coursing through the veins and stimulating every nerve of the body and every fibre of the brain, before lapse into congestion with its paralysing pressure, there is marked mental excitement, amounting at times to a state of ecstacy that appears to the patient like inspiration and to the spectator like madness.

Unlike insanity—which usually expresses itself so that its mental character can be discovered—the mental condition of delirium can be learned only from the patient. Having suffered delirium in the course of an attack of scarlet fever, many years ago, I was enabled to take careful note of the mental phenomena attendant upon its coming on and progress until it passed into the condition of unconsciousness. A short sketch of that experience will throw some light on a familiar, but rarely noted, form of an abnormal action of the mental mechanism which is fraught with instruction in Mental Physiology.

The first consciousness was of general exhilaration and enhanced activity of the whole mind, with very rapid flow of ideas. This gradually increased, until there was an almost sublime sense of mental exaltation. These sensations were very pleasant—for the thick-coming fancies were visions of beautiful landscapes, brilliant skies and glowing colours—such as I had never before conceived. Then countless comical faces seemed to stream before my eyes and I remember wondering, as each one flitted by, what oddity would come next. I was, indeed, greatly amused at the procession, which seemed endless in number and variety. All the corbels in Europe would not have supplied such a succession of queer features as did that delirious vision. After awhile, this gave place to a flow of silent eloquence. Imaginary poems, speeches and "leading articles" were constructed in my mind, with a seeming force of thought, fervour of original ideas and facility of expression such as I had never experienced.

At this stage of the malady I sent for my clerk and requested him to write at my dictation. I was then

contributing "leaders" to a newspaper. I dictated one which appeared to me, as I uttered it, to be by far the most eloquent "leading article" I had ever composed—the argument powerful, the language glowing. It was written as repeated by my lips and I directed that it should be sent to the office for publication. I believed it to be a paper that would make a sensation. My clerk prudently did not send it. On my recovery from the fever, he showed me the essay I had deemed so wise and beautiful. It was simply a confused mass of disjointed and incoherent sentences, with no perceptible argument, a hotch-potch of words wholly disconnected. This fact is interesting as throwing much light on the mental condition of Delirium and its next-of-kin Insanity.

Soon afterwards that stage of mental exaltation passed and pleasure was changed to sensations the horror of which haunted me long after and sometimes still, in dream.

The faintest odour became an overpowering stench and seemed to stifle me. The sense of touch was affected so that anything on which my finger rested appeared to grow beneath it until it was as a mountain. The fingers and indeed every limb seemed to swell until each was bigger than my whole body. The slightest sound was as thunder. Every sense nerve was in abnormal activity and the impressions brought to the mind were so exaggerated that I was thrown into an agony of pain and terror. After a while Consciousness gradually departed and the second stage of delirium commenced.

To this point the condition of dream was but partial. I was not asleep. I was conscious of all surrounding objects and motions. I had a perfect memory of every occurrence and talked sensibly, though excitedly, to those about me.

Of the second stage of delirium I am not competent to speak from personal recollection, for consciousness was suspended. It was restored for a moment when I was rudely roused, but as speedily it lapsed again into oblivion. For these phenomena of delirium I must refer

to my observation of them in another. A very remarkable case occurred in my own family.

The patient had been afflicted with rheumatic fever. Delirium had supervened and rapidly passed into the second stage, as indicated by occasional mutterings and by apparent insensibility, from which external voices could rouse him for a few moments only.

At this stage there occurred (and I have received similar reports from others) a very curious and interesting phenomenon.

Instead of the ever-changing visions that throng the mind in the early stages of delirium, there is a *continuous dream*. The mind invents and enacts a complete and consistent drama. It creates a world of its own and lives in it. This phenomenon differs from the ordinary dream of sleep insomuch that a sleep-dream is rarely continuous even in the one slumber, which is usually occupied with many dreams wholly disconnected and even inconsistent. Still more rare in sleep is the continuance of a dream after waking to consciousness or the return of it when again falling into sleep.

But the dream of the low stage of delirium is continued not merely for hours but for days. It is not disturbed even by the occasional recall of the patient to consciousness. He returns to waking life for a time; but when he relapses into the delirium the drama of the dream is continued as if it had not been interrupted.

And this continuous dream of delirium is even more vivid and real to the mind of the patient than are any occurrences of real life. They live in his memory as things actually seen, heard, and felt. If the story so invented and enacted be one that after occurrences or the facts of waking life do not contradict, he never again loses the conviction that they were real. If they are inconsistent with subsequent experience, they are slowly and reluctantly abandoned. As a patient who had experienced such an affection remarked to me, "It is hard to discredit all this. It is more real to me than anything I have seen—more true to my mind than any truths."

CHAPTER II.

INSANITY.

THE next stage of departure from the normal condition of the mental mechanism is the malady too familiar to us by its title of Insanity. It differs much in its nature and phenomena from dream and delirium, but presents some of the characteristic features of both.

Dream is insanity in sleep. *Delirium* is a temporary waking insanity. *Insanity* is a waking dream and a protracted delirium.

But insanity differs from dream in this—that it prevails when the senses are awake and at work, when the Will is in full activity, when more or less of the mental faculties are in sound health and capacity.

Insanity has been described as "a waking dream." It is so in part, but not wholly. As in all other abnormal conditions of the mental mechanism, the patient mistakes his mental conceptions for objective realities. All of us do this in dream and in delirium; but when we pass out of these abnormal conditions into waking and healthy life we learn to discriminate between fancy and reality, between the ideas self created within and impressions brought to the mind from without. Insanity is marked by the loss of this capacity to discover the subjective from the objective and consequently the Insane awake are very nearly what we are when asleep. To understand something of the condition of an insane mind, it is only necessary to recall the state of your own mind in a dream

[illegible] seemed to be *seeing* among your fellow [illegible] same parts that in your dream you *imagine* that [illegible].

It is difficult to realise to the imagination the state of [illegible] that would take objects of *sight* to be quite other [illegible] than they are. But it is easy to comprehend how [illegible] in which fanciful *ideas* may be mistaken for [illegible] all our knowledge is in fact *mental*—that is, [illegible] we [illegible] is that the mind presents to us [illegible]. We [illegible] cannot know that a thing corresponding [illegible] does actually exist, or that it is as it seems to us [illegible]. And the insane, an impression is made upon the [illegible] of sight—by some external object. An [illegible] state of the brain deforms or transforms that impression and the Conscious Self receives the deformed image precisely as if it had been a veritable sense impression. If the other mental faculties are sound, they accept this false impression and treat it as true and we have the insane condition known as *hallucination*. In such case the patient reasons rightly from wrong premisses. Assuming his conception of the object to be the true one, he thinks, acts and speaks with perfect consistency. This is the Psychology of the condition known as *Mono-mania*.

But when other important faculties are diseased also, the phenomena become more complicated. Insanity may be of one, or two, or more of the mental powers, and according to these combinations so will the malady manifest itself. Hence the wonderful variety of forms which madness assumes, insomuch that the most experienced doctor has never seen two cases having precisely the same features. There is no part of the mental mechanism that is not liable to be thus disorganised. The intellectual faculties are as subject to dislocation by disease as are the sentiments and the passions. A further element of difficulty in the diagnosis of Insanity is the duplex structure of the brain—the fact that we have *two* brains [illegible] two material organs for the expression [illegible] faculty. For it may well be,

and often it is, that disease is limited to one brain, the other brain being quite healthy. In such a condition, madness presents the most strange and seemingly unaccountable forms. The diseased and the healthy faculty may be observed as acting together, but not in concert. Then comes the same kind of mental obliquity which we discover in the sense of sight when we thrust one eye out of its focus. The product in such case is that we mildly call "*eccentricity*;" but it is Insanity really.

Insanity is disease of the brain, not of the Soul—of the molecular mechanism, not of the non-molecular thing of which that mechanism is but the organ. The Conscious Self is not mad. The mechanism only is dislocated through which alone it can express itself to, or be itself impressed upon by, the external world. It is as with a player on a musical instrument that is out of tune. Although himself designing harmony and striking the true string, he can present only harsh discords to the listening ear. It may as well be said that the steam engine is crazed because the power it transmits to the disjointed mechanism of the loom issues in a chaos of tangled webs.

The brain only is diseased. The minister and not the master is at fault. Insanity is damaged brain. There may be excitation without lesion, or depression from lack of stimulus. Each has definite and distinctive features readily to be discerned by the Psychologist. Such cases are curable by removal of their causes. Otherwise it is, if there be lesion. Where positive destruction of the brain fibres has taken place no skill nor care can cure. The utmost that can be accomplished is to arrest the progress of the malady. But even in such a case there is no cause for despair. The mental faculties are all in *duplicate*. We are gifted with *two* brains, doubtless as a provision against the contingency of fatal injury to one of them. Unless the same parts of both brains be disorganised, the mind will not be wholly incapacitated in respect of the particular faculty, although its power will be diminished and its capacity for combined action disturbed.

The student of Psychology will understand now why it is that Insanity is so very various in its aspects; how false is the vulgar notion of insanity, which assumes that if the patient be partially "*out of his mind*"—he has ceased to be a human being. Probably few, if any, are insane altogether—that is to say, are diseased in every part of *both* brains—for the result of such a condition would not be insanity, but *idiotcy* or death. In *all* other cases there is more or less of the sound brain and therefore of the sound mind. The first duty of those who have care of the insane is to ascertain *what* of the mental faculties are diseased and what continue sound. Treatment should then be directed to restraining and modifying the action of the one and strengthening and confirming the action of the other.

There are phenomena of Insanity the description of which would worthily occupy more pages than can here be given to the entire of the Mechanism of Man. For its physiology and treatment generally the reader is referred to the works of Dr. CONOLLY and other experts who have conducted extensive asylums in which a vast variety of its phases have been committed to their care.

The lessons *Psychology* gathers from the phenomena exhibited when a diseased brain induces *Insanity* may be briefly stated.

1. They supply conclusive proof that the mind—using that term in the popular sense—is *not* one homogeneous whole, acting as one entire entity in all its operations, as asserted by Dr. CARPENTER and others; but that it is composed of parts, each part having its own proper function. The action of each part is exhibited in that expression of the intelligence we call a "mental faculty."

Insanity proves a diversity of parts of the brain, as associated with diversity of function, by the fact that some functions are seen to be diseased while others remain sound. Thus comes *partial* Insanity or *Monomania*.

2. Insanity indicates that which has now been proved conclusively by Professor FERRIER, and which was long ago demonstrated by GALL, SPURZHEIM and COMBE, that

various parts of the brain are appropriated to various mental functions, each distinct mental faculty having its own special place in the mechanism of the brain. But what are the precise parts of the brain so occupied is as yet unproved.

Insanity demonstrates this by the direct relationship it exhibits between disease of a certain part of the brain and disorder of a certain mental faculty. Nor is this relationship rare or accidental. Disease of the same part of the brain in two or more patients is always attended with disorder of the same mental faculties. Conversely, by observing what faculties are disordered, the seat of the brain disease may be accurately ascertained.

3. Insanity exhibits some further phenomena that support the theory of *Pneumatology*—the "Science of the Soul."

The Insane never lose the consciousness of their own individuality. As with the sane in dream, the insane do not lose their *identity*. They believe themselves to be some other *character*, not to be some other *being*. It is ever himself who has become a king. John Smith does not think that he *is* George Rex but only that John has been exalted to the state of George. He is John playing George.

The consciousness of identity remaining, after the material machinery of the mind has been so disordered and dislocated that all mental action is a chaos and the usual evidences of actuality destroyed, can be explained only by this—that there is something other than the disordered mechanism which preserves its sense of identity and individuality. That *something* which does *not* become insane with the insane mind is the non-molecular entity we call "the Soul." Insanity—which is *brain disease*—that is, some injury to the brain structure—cannot touch the Soul. True, the Conscious Self is deprived of its power to receive from or convey to the external material world correct expressions and impressions; but it preserves its own power unimpaired, in despite of the abnormal conditions by which it is

encompassed. *The Soul* is not insane, only the mechanism through which it works. If that diseased mechanism be repaired, healthy intercourse with the world is renewed. If it be diseased beyond recovery, the shattered molecular mechanism perishes, but the non-molecular being—the "you" or "I" survives, or *what becomes of it?*

BOOK V.

THE PHENOMENA OF SOMNAMBULISM.

CHAPTER I.

INTRODUCTION.

THE conditions of Sleep, Dream, Delirium and Insanity are familiar to every reader. Their existence is not denied and the simple business of the Psychologist is to observe the undisputed phenomena and try to trace them to their sources. Readers who had patience to peruse attentively the preceding chapters were doubtless surprised to find how much of the popular prejudices on the subjects there treated of had taken possession of their own minds and how difficult it is to divest themselves of those prejudices. Dreamy conceptions of the constitution and mechanism of Man, of the nature of Mind and Soul and of their mutual relationship, could not fail to have coloured the facts and "cribbed, cabined, and confined" all efforts of thought. We can sympathise with the student, seeking honestly the very truth, but finding himself involved in a maze of fanciful conjecture. Yet how few, plain and simple are the explanations of that which he had learned to look upon as profoundest mysteries it was profanity even to endeavour to explore! If so it be with subjects familiar to ear and mind as Sleep and Dream, Delirium and Insanity, he will not be surprised to learn that the comparatively rare abnormal conditions

now to be examined are still more encompassed with prejudices and demand for the investigation of their phenomena an equally clear conception of the human mechanism. Many of those phenomena are apart from everyday experience, of infrequent occurrence, therefore affording but few opportunities for test examination by the Psychologist and Physiologist.

We are reviewing still the *abnormal* mental conditions the existence of which is undisputed, taking them in the order of their familiarity to ourselves rather than with reference to their intrinsic importance.

In truth, the phenomena of Dream, although presented to us during a considerable portion of our lives, are quite as marvellous as any that are exhibited in the other allied psychical conditions. The subject has been thus arranged with further purpose to show how intimately these various mental affections are related, insomuch that, as we view them in succession, we shall find each to be little more than a further development of its predecessor, and that all have their origin in a few familiar and undisputed physiological and psychological conditions.

It is worthy of note by the Student how in this, as in other departments of Science, the popular mind is more impressed by the *strange* than by the wonderful. It accepts with complacency whatever is familiar, however full of marvel it may be, and rejects with unreasoning obstinacy, as impossible or improbable, things far less marvellous that have the discredit of *novelty*. The reader is requested to keep watch and ward against this common weakness, while pursuing the Science of Psychology. At every step he should ask himself, *not* is it *strange*, but is it *true?* If it be *true* it will soon cease to be *strange*.

In *Dream* we have seen the mind working without the aid of the senses or the control of the *Will*. In *Delirium* we have seen it dreaming when awake. In *Insanity* we have seen it mistaking its subjective for objective impressions, in full possession of Will power, *acting* its

mental conceptions, but unable to distinguish the ideal from the real.

In *Somnambulism* all the features of these abnormal conditions are present, but developing some further special conditions to which the attention of the student is earnestly invited, for they are calculated to throw a stronger light still upon the Mechanism of Man, upon the being of Soul, and upon the relationship of Soul to body.

CHAPTER II.

SOMNAMBULISM.

THE name given to this remarkable and profoundly interesting abnormal condition of the Mechanism of Man would imply that it is a form of Sleep. Such is, indeed, the popular notion, for it is commonly known as "sleep-walking." Probably this is still the conception of it by the majority of the Doctors who have examined its physiology only and not its psychology.

But Somnambulism is *not* sleep and has no alliance with sleep, other than closed eyes. The Somnambule, as will be seen presently, can perceive external objects, can converse rationally and *act* sensibly, which the sleeper cannot.

It is, in fact, a distinct and definite physical and psychical condition.

The aspect of the Somnambule resembles that of the sleeper. There is the same placidity of feature. The eyes are closed, save in very rare instances. The breathing is slow and regular, the pulse betraying no excitement. The eye alone exhibits a distinguishing characteristic. The eyelids are closed with almost spasmodic energy, insomuch that muscular effort is required to open them. They are incessantly quivering, with a rapidity impossible to be maintained by any effort of the waking Will. When force is used to separate the lids, the eyes are found to be turned upwards and inwards, so that no direct ray of light from without can possibly fall upon the retina. They also are quivering. This is the feature by which the condi-

tion of Somnambulism may always be readily and certainly distinguished from the condition of sleep and from all other conditions. It is of much importance, for it is an absolute security against imposture. *Neither of these convulsive actions can be assumed or imitated by any voluntary effort.*

What is the condition of the BRAIN in Somnambulism differing from its condition in sleep we are as yet wholly ignorant. It is not even known what part of the brain structure is the seat of the affection. It is certainly the result of an unhealthy state of the mental mechanism. Some great psychological changes are exhibited and these imply corresponding physiological changes in the mechanism of the brain. The normal relationship of the Conscious Self to the mechanism of the mind is manifestly disturbed and more or less in a state of dislocation.

Somnambulism occurs *naturally*. It may also be produced artificially. From the many persons who are found on trial subject to Somnambulism, it may be presumed that it occurs naturally much more frequently than observation has recorded. From the nature of the affection it is likely to come and pass away when there is no spectator of the actions of the Somnambule. But the cases are so many and so well authenticated by competent observers and within the personal experience of so many readers, that *Somnambulism* may be accepted as *a fact in nature* whose existence is neither disputable nor disputed.

This is a truth of much import to Psychology. The unquestioned phenomena of natural Somnambulism are quite as wonderful as any that are exhibited in artificial Somnambulism and other allied abnormal psychical conditions which are absolutely rejected because of their seeming strangeness. The very persons who admit, because compelled by overwhelming evidence, the super-sensuous perceptions of the *natural* Somnambule, reject the super-sensuous perceptions of the Somnambule whose condition is *artificially* induced, upon the distinct ground that the acts alleged to be done are impossible.

Such are the melancholy inconsistencies of Scientists, who claim more freedom than other men from prejudice and prepossession and boast a freer exercise of reason!

Artificial Somnambulism is *identical* with natural Somnambulism. But it possesses this great advantage for the student of psychological science, that being produced and removed at will, it affords means for observation and experiment, the value of which has been as yet but imperfectly recognised. The patients can be subjected to *conditions*. Tests may be freely applied. Careful record can be kept of phenomena and they can be confirmed by frequent repetition. Indeed, it is by the means thus provided for observing the action of the mental mechanism in its abnormal conditions that Mental Physiology and Psychology may hope to achieve hereafter their grandest discoveries.

Hitherto the just objection made to Psychological and Mental Science has been, that it rests upon no solid basis of *facts capable of proof* (as are the facts of physical science) by observation and positive experiment. Its basis was said to be more or less problematical and conjectural. Introspection was consequently substituted for observation and self-analysis for experiment. It was assumed that, because Mind and Soul were incapable of being seen, handled, carved, weighed and analysed, they could not be the subjects of tangible science. Therefore they were remitted to the limbo of fancy and treated as topics for ingenious conjecture and argument only. But Somnambulism, with its capability for ready reproduction, with the control the investigator possesses over the patient, in this respect almost rivalling the command which the Physiologist has over the organic matter that is the subject of *his* experiments, has happily opened to Science the same means for investigating Mind and Soul (or whatever may be the forces that move and direct the body intelligently) as the Physicist enjoys for the investigation of matter and the physical forces by which matter is moved.

CHAPTER III.

NATURAL SOMNAMBULISM.

ALTHOUGH the aspect of the patient in Somnambulism so far resembles Sleep that the popular name was given to it on the assumption that it was only a form of Sleep, it must be distinctly understood that *Somnambulism is not Sleep*. It is in fact a condition, both mental and physiological, quite other than that of sleep. Sometimes it attacks the patient subject to it in his bed and during the state of ordinary sleep. But there is a distinct passage from one condition into another condition. Its character is different, it has other causes and produces other effects.

Fortunately for Psychological Science, *Natural Somnambulism is an undisputed fact.* Doubtless it would have been denied by the Materialists if denial were possible. But its recurrence is too frequent and too familiar to be denounced as imposture on the part of the patient or delusion on the part of the observer.

The phenomena exhibited in natural somnambulism are also admitted to be facts, but with a reluctance not surprising. The phenomena of natural somnambulism are quite as wonderful and inexplicable as are those exhibited in somnambulism artificially produced and in other abnormal conditions, which are disputed and denied because they are strange, the patients called impostors and the witnesses dupes! That the same phenomena *can be* and *are* exhibited naturally is an awkward fact

for those who contest their *possibility* when produced by art.

NATURAL SOMNAMBULISM, taken alone, could accomplish little for mental science. Not that cases of it are few, but that from their nature they are difficult of access and when seen still more difficult to investigate. In the majority of instances the condition occurs at night, when the patient is in his bed and the room is dark. A certain amount of awe is felt by the spectator, however familiar may be the spectacle, and few have the courage, and fewer still the patience and intelligence, requisite for close and continued observation of the actions of the Somnambule. Moreover, there is reluctance, on the part alike of the patient and of his friends, that his infirmity should be known, associating it, as some have ignorantly affected to do, with insanity present or threatening.

Somnambulism differs from sleep in many important features.

The aspect of the patient is that of one plunged in profound slumber. It is a popular belief that the eyes are open, the eyeballs fixed and staring, but with no intelligence in them, the eyelids never winking. Such was Shakespeare's notion, as shown in the powerful picture of this malady in *Lady Macbeth*, the general accuracy of which is as admirable as is its artistic effect. Trite though it is, it describes the mental phenomenon now under consideration with a truthfulness no language of mine could embody.

Doctor.—When was it she last walked?

Gentlewoman.—Since his Majesty went into the field, I have seen her rise from her bed, throw her night gown upon her, unlock her closet, take forth paper, fold it, write upon it, read it, afterwards seal it, and again return to bed; yet all this while in the most profound sleep.

Doct.—A great perturbation in nature. To receive at once the benefit of sleep and do the effects of watching.

Gent.—Lo you, here she comes! This is her very guise; and upon my life fast asleep. Observe her.

Doct.—You see her eyes are open.

Gent.—Aye, but their sense is shut.

Doct.—What is it she does now? Look, now she rubs her hands.

Gent.—It is an accustomed action with her, to seem thus washing her hands. I have known her continue in this for a quarter of an hour.

There may be, and indeed some reported cases seem to show that there are, instances in which the eyes of the Somnambule are wide open and staring, as with Lady Macbeth. But these cases are very rare. With the vast majority of Somnambules the eyes are firmly closed, so firmly that considerable force is required to open them. The countenance is extremely placid, the face very pale, the extremities abnormally cold and clammy, the breathing regular and full, with frequent sighing, or rather, deep inspirations that make the sound of a sigh, but are not, like sighing, expressions of mental emotion.

But here the resemblance to sleep ends. The conditions differ from those of sleep in many particulars. The muscles are not flaccid, but retain all, and often more than, the ordinary tension of waking life. The limbs are not relaxed, but in energetic action. The head does not droop. If the eyelids be forcibly raised (and they are always lifted with difficulty, so firmly are they pressed together), the eyeballs are found in an unnatural position, drawn upwards and inwards, so that the direction of the line of vision would fall within the upper orbit of the projecting frontal sinus—a position in which the exercise of sight would be impossible, even if the eyelids were raised. This remarkable position of the eyes is especially to be noted, for it is *the characteristic of the somnambulist condition* and distinguishes it at once from ordinary sleep, in which the eyes always preserve their natural position. It is important also in this respect, that *it cannot be voluntarily assumed.* No effort of the Will can place the eyes in the position exhibited by a Somnambule. It will be noted also that, when the eyeballs are in this abnormal position, they are not still, as in sleep, but in a state of rapid and constant quivering.

All the senses appear to be closely sealed. No sounds

startle, however loud or sudden. The patient is insensible to pain. Taste, touch and smell are paralysed. The strongest snuff does not cause sneezing. There is not the slightest wincing from the application to the nostril of the most powerful ammonia. Sight is impossible, for in the position of the eyes no ray from any external object can fall upon the retina.

Nevertheless, in this apparently helpless state, deprived of the assistance of *all* his external senses, the patient rises from his bed and walks with facility and firmness in the dark as well as in the light, avoiding obstacles as readily as if he could see or feel them. Thus he passes, without fear and with perfect ease and safety, over places dangerous even to the waking footstep—on the ridge of a house roof; across a narrow plank above a stream; down a steep and perilous path by a precipice over which he would be hurled if the footstep erred but a few inches; through rooms crowded with furniture, threading his way without stumbling or mistaking.

Nor this only. The Somnambule, with his eyes closed and all his senses sealed in the darkness of the darkest night, will perform his daily work, however intricate—write, read, thread a needle, draw and paint, and do other acts requiring keen sight, manual dexterity and delicate touch. During the entire of this, all his external senses are paralysed. He neither sees, hears nor feels with the bodily organs. *The Mind only is awake.* Manifestly *the Mind,* in this condition of somnambulism, *receives impressions of external objects and guides the actions of the body without the assistance of its usual informants, the senses.* And these things are done, not tentatively nor with hesitation, as by one feeling his way or seeking for something in darkness, but firmly, unhesitatingly, easily, perfectly, and without mistakes, as if he had been awake and was acting in the daylight instead of in the dark. If the affection occurs in sleep and the patient is undisturbed, he usually retires again to his bed. Somnambulism gives place to sleep. The eyes resume their natural position. The

limbs relax. Dreams come and go and are remembered. Finally, he wakes from slumber without the slightest recollection of anything that had happened during the period of his somnambulism.

Nor are these phenomena all that is strange in a natural condition not now disputed by Physiologists or Physicians. Although the Somnambule has no memory, when awake, of anything that occurred during the paroxysm,—when a similar fit recurs, he usually resumes the dream life that had been interrupted when he passed from it into sleep and continues the work upon which he had been engaged, at the very point where he had left it.

It is as if the Somnambule possessed two lives, one his waking life, the other his somnambulist life, each independent of the other, each having its own life drama and neither having any knowledge of the history of the other.

There are further differences between *Somnambulism* and *Sleep*. Sleep seals the external senses but partially; Somnambulism seals them perfectly. Impressions made upon the senses in sleep modify dream by suggestion. The Somnambule appears not to be thus affected. We are unable to *act* the dreams of sleep, although presented to us as realities and believed at the moment to be real, but we *think* we are acting them. The rationale of this is that the link is severed between the Conscious Self and the nerves that, in the normal condition of the mechanism, are obedient to it. The Will also is paralysed. As the consequence of this, the body does not receive the commands of the Mind, nor does it deliver to the Mind the impressions made upon itself.

In *Sleep*, also, the self-produced idea dominates the whole Mind, which unhesitatingly accepts the impossible, the incongruous and the absurd as being not only possible but practicable and proper. And it is not dreamed of as *contemplated* merely, but as being *done*.

By the Somnambule *the dream is acted*. It is never either impossible or absurd. On the contrary, his action

is a rational direction of appropriate means to reasonable ends—as much so, at least, as are the promptings of his mind, his motives and his actions, when he is awake.

The difference between the *mental* conditions of the Sleeper and the Somnambule appears to be as thus. With the *Sleeper*, the senses are dulled, not suspended; he has lost control over the action of the brain and he has lost *also* the power by which the brain commands the actions of the body. In this condition the various faculties act, each according to its own impulses, in strict obedience to the law of association. The Mind is unable to discern incongruities, to recognise the impossible and impracticable, or to distinguish self-produced ideas from impressions actually made upon the external senses by objects without. In sleep, the most sceptical philosopher rivals the devotee he derides when awake and is himself an example of the creed thus tersely expressed; "I believe in all impossible things."

But with the *Somnambule* the external senses only are sealed. *All* the faculties of his mind are wide awake. He has perceptions of external objects, although certainly through some other medium than the five senses, and he *acts* upon the impressions so abnormally received as perfectly and as rationally as when he is awake.

The *Sleeper* dreams, but he does *not* act the dream, although at the moment of dreaming he firmly believes that his body is actually engaged in the performances that are pictured to the eye of his mind. The *Somnambule* dreams; but, unlike the Sleeper, *he acts the dream*, preserving still a consciousness of the external world, dealing with it in a manner that proves him to have distinct mental perceptions of surrounding objects, although they are imperceptible to his bodily senses.

We are wholly ignorant (and this is another of the many confessions of ignorance the Psychologist and Physiologist are continually compelled to make) of the *causes* of this remarkable affection. We have but partial acquaintance with its phenomena. Better knowledge of these could not fail to throw a blaze of light upon

many of the more obscure operations of the Mind and the *relationship* of Body, Mind and Soul. It is indeed marvellous that the opening of a mine so rich in the most important of all knowledge as is provided by these abnormal mental conditions should have been so long neglected by Physiologists and Psychologists. The recent revival of the public interest in Psychology and all that relates to it may, perhaps, induce some Philosophers to turn from the vain endeavour to advance psychological and mental science by abstract metaphysical argument to the more tedious, but more profitable, investigation of the positive *facts* that belong to it.

Cases of *Natural Somnambulism* being rarely accessible, our knowledge of it would have been limited to the few that have been reported by competent observers, chiefly medical, were it not for the comparatively recent discovery, that the *condition itself can be produced artificially* in a great number of persons and that thus observation and experiment can be conducted in almost any manner and to any extent required for the extension of psychological science.

To this, therefore, we will presently turn. But here let me submit to the reader some of the best authenticated cases of *Natural Somnambulism*, that he may compare them with the cases of *Somnambulism artificially produced*, which he will find hereafter recorded. The resemblances he cannot fail to note will serve the important purpose of assuring him that the phenomena are substantially the same in both. If, therefore, in the one they are undoubtedly genuine, the reasonable inference is that they are equally genuine in the other, and that the imputations of fraud and delusion, so freely cast upon investigations of all new regions of science, are in this instance altogether unsound, illogical and unjust.

Dr. ARNOLD WEINHOLT reports the following, on the authority of Dr. SCHULZ, the famous physician of Hamburgh:

A girl between twelve and thirteen years of age, belonging to a family of some distinction, was afflicted with a violent nervous

complaint, in which strong convulsive motions alternated with catalepsy and syncope. Besides, she frequently had paroxysms, during which she conversed with much liveliness and ingenuity. In this state, she distinguished, without difficulty, all colours that were presented to her, recognised the numbers of cards and the stripes upon those which were variegated. She described the colour of the binding of books, when shown her. She wrote in the same manner as usual, and cut figures in paper, as she was accustomed to do, for pastime, in her waking state. Her eyes at this time, were firmly closed. But in order to be assured that she made no use of them, a bandage was placed over them on the approach of the paroxysm.

The following case is recorded in the "Breslau Medical Collections:"

A rope-maker was frequently overtaken by sleep, even in the day-time, and in the midst of his usual occupations. While in this state, he sometimes recommenced doing all that he had been engaged in during the previous part of the day; at other times he would continue the work in which he happened to be engaged at the commencement of the paroxysm, and finished his business with as great ease and success as when awake. When the fit overtook him in travelling, he proceeded on his journey, with the same facility, and almost faster, than when awake, without missing the road or stumbling over anything. In this manner he repeatedly went from Naumburgh to Weimar. Upon one of these occasions, he came into a narrow lane where lay some timber. He passed over it regularly, without injury; and with equal caution and dexterity he avoided the horses and carriages which came in his way. At another time he was overtaken by sleep just as he was about to set out for Weimar on horseback. He rode through the river Ilme, allowed his horse to drink and drew up his legs to prevent them from getting wet; then passed through several streets, crossed the market place, which was at that time full of people, carts, and booths, and arrived in safety at the house of an acquaintance, where he awoke. These, and many similar facts, requiring the use of the eyes, he performed in darkness as well as by daylight. His eyes, however, were firmly closed, and he could not see when they were forced open and stimulated by light brought near them. His other senses appeared to be equally dormant as were his eyes. He could not smell even the most volatile spirit. He felt nothing when pinched, pricked, or struck. He heard nothing when called by his name, or even when a pistol was discharged close beside him.

The next is the case of a student observed by Professor and Aulic Councillor FEDER:

He would go from his bed-room to his parlour and back, open and shut the doors, as well as his closet, and take out of the latter whatever he wanted—pieces of music, pen, ink, and paper—and all this with his eyes shut. From among his music he selected a march from the opera "Medea," laid the sheet in a proper situation before him, and having found the appropriate key, he played the whole piece, with his usual skill, upon the harpsichord. In the same manner he also played one of Bach's Sonatas, and gave the most expressive passages with surprising effect. One of the persons present turned the notes upside down; this he immediately perceived, and when he recommenced playing he replaced the sheet in its proper position. While playing, he remarked a string out of tune, upon which he stopped, put it in order, and again proceeded. He wrote a letter to his brother, and what he wrote was not only perfectly rational, but straight and legible. While Professor FEDER was upon a visit to him one afternoon, he (the somnambulist) observed that it was snowing, which was actually the case. On the same occasion, notwithstanding his eyes were still completely closed, he remarked that the landlord of the opposite house was standing at the window, which was true, and that hats were hanging at the window of another room, which was also the fact. He opened Professor FEDER's "Compendium of Logic and Metaphysics," and pointed out to him several passages which he thought interesting, as also some of his own written notes of the Professor's Lectures in a volume which had been recently bound. He pointed out to another of his teachers the exact place where he had left off in his last theological lecture.

A trustworthy physician, Dr. KNOLL, recorded the following of a young gardener, who was a Somnambule:

He generally fell asleep about eight o'clock in the evening, and then began to utter devotional sentences and prayers. Afterwards, he went out of the house, clambered over a high wooden partition and a still higher wall uninjured, passed through several streets and returned. At another time, he climbed up to the roof of the house and rode astride upon the gutter, as if upon horseback, clambered about for some time upon the roof and at length descended in safety. With a view to prevent accidents, he was locked up in a room and watched. When he became somnambulist at the usual time he began to perform all sorts of operations upon his clothes and the furniture of the room. He climbed up to the window sill, and from thence to a stove, which was much higher and at some distance, and rode upon the latter as if upon a horse. The height of the stove, its distance from the window and its small breadth were such that a person awake would scarcely have ventured to attempt these operations.

After descending from the stove, he knocked a large table about hither and thither and finding that it was likely to fall upon himself, he very dexterously contrived to evade it. He gathered together all the clothes he could find in the room, mixed them together, then separated them carefully and hung them up, each article in its proper place. The old stockings and shoes he endeavoured to arrange in pairs, according to their shape and colour, as if he accurately saw them. He laid hold of a needle, which he had struck into the wall some weeks before and sewed his small-clothes. Besides these, he performed a variety of other operations—all requiring light and the use of the eyes, with which, it would appear, he was enabled to dispense.

MEINERS, in his collection, has given place to the following extract from MORITZ'S *Magazine*. The patient was a girl aged sixteen:

The paroxysm generally attacked her in the morning and consisted of a profound sleep. In this state, she would jump, with astonishing activity, upon tables and chairs, run, when permitted, and with great activity, out of the house—generally to a particular place in the neighbourhood; and when she did not awake, she would return immediately, but sometimes by a different road and in a different direction. She not unfrequently left the high road and ran straight through the fields. She never fell nor injured herself, however rough her path might be, or however fast she might run; and her speed was sometimes so great, that her much stronger and more active brother could not keep pace with her. She frequently mounted upon the garden wall, upon the uneven top of which she continued to run; nay, she even went upon the edge of the house-roof without once stumbling, much less falling. During all these hazardous operations her eyes were fast closed and she appeared to be deprived of all her other senses.

The *French Encyclopædia* has preserved a very remarkable case, accurately noted by the ARCHBISHOP OF BOURDEAUX. It is that of a young ecclesiastic in the same seminary with the Archbishop:

He was in the habit of getting up during the night, in a state of somnambulism, of going to his room, taking pen, ink, and paper, and composing and writing sermons. When he had finished one page of the paper on which he was writing, he would read over what he had written and correct it. Upon one occasion he had made use of the expression, *Ce divin enfant.* In reading over the passage, he changed the adjective *divin* into *adorable.* Perceiving, however, that the pronoun *ce* could not stand before the word *adorable*, he added to the former the letter *t.*

In order to ascertain whether the somnambulist made any use of his eyes, the Archbishop held a piece of pasteboard under his chin, to prevent him from seeing the paper upon which he was writing; but he continued to write on, without appearing to be incommoded in the slightest degree. The paper upon which he was writing was taken away, and other paper laid before him; but the somnambulist immediately perceived the change.

He wrote pieces of music while in this state, and in the same manner, with his eyes closed. The words were placed under the musical notes. It happened upon one occasion that the words were written in too large a character and did not stand precisely under the corresponding notes. He soon perceived the error, blotted out the part and wrote it over again with great exactness.

The Memoirs of the *Upsal Academy of Science* contain the following case, reported in the year 1741. It is that of a young lady who fell into a condition of Somnambulism similar to those already described. With her, however, the eyes were wide open, but she was wholly insensible:

Sauvages, who suspected deception, made use of several means of ascertaining the truth. He caused her arm to be deeply pricked with a needle, the soles of her feet to be gently tickled with the points of the fingers—poured spirits of hartshorn into her mouth, held it to her nostrils and blew Spanish snuff up her nose. He caused her to be addressed unexpectedly in a loud voice. A person, who had been concealed, suddenly uttered a piercing cry close to her ear and, at another time, he suddenly threw a stone violently against her bedstead. But all this produced in this otherwise so excitable person not the slightest mark of feeling and occasioned no motion. The attempts, too, made by Sauvages to produce some effects upon her eyes were quite as ineffectual. In vain did he unexpectedly aim a blow at her with his hand. She made no effort to evade it, nor did she interrupt her discourse; and the eyelids did not move in the slightest degree. He held spirits of hartshorn before her eye; moistened a feather with it and applied it to the *cornea;* suddenly touched one of the eyeballs with his finger; nay, at last he held a lighted candle so close to her open eye that her eye-lashes were burnt. During this insensibility of her eyes, she rose from her bed, walked about the room, kept the middle way between the bedsteads, as well as she could have done when awake, turned round at the proper time, did not once stumble against anything, although several things were placed in her way; and all this she did without touching the objects. These experiments and obser-

vations were repeated at various times, in presence of several competent witnesses.

To these I may be permitted to add a scarcely less remarkable case of Natural Somnambulism that came under my own observation, being daily presented to my notice for a period of more than twelve months.

The patient was my sister, a girl of fifteen, of hysterical temperament and somewhat deficient in intelligence. I was six years her senior. I had then no knowledge of the phenomena of Somnambulism beyond the uses made of it by the novelist and the dramatist. I had never even heard of Mesmerism. I was, therefore, a perfectly unprejudiced witness.

The form presented by the malady was principally that known by the name of *Catalepsy*, but of which condition also I was then wholly ignorant. She passed usually from Catalepsy to Somnambulism—that is to say, the paroxysm began, without any premonitory symptoms, by a sudden arrest of the action of all the limbs, the entire muscular system becoming as rigid as if she had been instantly turned to marble. Whatever was her attitude at the moment of the attack, in that position she stiffened, and so remained, stone-like, for periods of time varying from ten minutes to half-an-hour. I have seen her thus suddenly changed into a living statue as she was ascending the stairs, with one foot on the stair above, the other foot on the stair below, remaining fixed thus for many minutes. At the dinner table the same phenomenon occurred many times, and if at the moment the fork was being lifted to her lips, the raised hand and the open mouth continued until the affection changed its phase. As the catalepsy relaxed, usually but not invariably, she passed into a condition precisely resembling that exhibited in Natural Somnambulism, and which I have since often witnessed in Artificial Somnambulism. Her eyes, which in the catalepsy were for the most part open wide and painfully staring, but with an evident absence of perception, gently closed, and this was the first sign that the rigidity of the Catalepsy was subsiding. The stiffened limbs resumed their natural postures. She did not speak. Her senses were dead to external impressions. The eyelids were then firmly set and force was required to separate them. When thus lifted, the eyes were seen to be directed in the manner stated to be observed in Somnambules, namely, upwards and inwards. She had, nevertheless, a Will and wishes, which she communicated by signs, the power of speech being apparently suspended. No sound startled her. No touch seemed to be felt and vision with the eye was impossible. In this condition, which, if not Somnambulism, resembled it closely, she reclined for the most part upon the sofa with the aspect of profound sleep, but

occasionally making signs which the family learned to interpret. Sometimes, but seldom, she would rise and go about her ordinary employments, but still with her eyes firmly closed.

It was in this condition of *Natural Somnambulism* that the phenomena were exhibited which I am about to describe, and which are not less remarkable than those above recorded of other Somnambules. I can vouch for the accuracy of this report, for I personally witnessed all, with curiosity and wonder, but without the slightest knowledge then of their source or connection with any problems in Physiology or Psychology. Nor were they hastily or partially observed. They were seen by myself and the whole family almost daily for nearly two years. I inquired of the Doctor who attended her, and who witnessed them also, if these phenomena were not very strange? I asked him what was the cause of them, and how the girl's mind could so perceive beyond the possible range of the external senses, and so forth? I received from him this sage answer, "My good fellow, it is a case of hysteria, and in hysteria people can do anything!"

I fear many of our Doctors would not now answer more intelligently.

And *this* is what she did.

She was very fond of her father. In her somnambulistic condition she perceived his coming, while he was yet far beyond sight or hearing—distant often more than a mile. The expression of pleasure was unequivocal and we always knew that he was coming by her indications of his approach long before his appearance.

If, as she lay upon the sofa, her eyes firmly closed, I opened a book having pictures in it and sat *behind her* in a position where it was physically impossible that she could see what I was doing, and I looked at one of the pictures, she forthwith exhibited, in pantomimic action, the posture of each person there depicted. It was perfectly manifest that she had the image of the engraving impressed upon her mind as distinctly as if it had been conveyed to it by the sense of sight. Nor is it to be explained by the suggestion that the engravings were familiar to her and that she guessed upon which of them I was looking, for it was the same with books and pictures purposely tried which she had never seen. But whether that impression was obtained through *my* mind, in which the image also was, or that her mind perceived the picture itself directly, although out of the range of vision, is the problem to be solved. If the servant who attended her, obedient to her signalled desire, went to her bedroom *on the floor above* the room in which she was lying entranced, she expressed the most obvious signs of annoyance if the servant above touched the wrong thing, and of satisfaction when she touched the right one, precisely as if the search had been made in the same room and she saw what was going on. The experiment

was purposely tried many times, with various tests, so as to leave no doubt of the fact upon any member of the family who witnessed it. Noteworthy, also, it is that in the somnambulist condition she played cards skilfully with her eyes closed, while in her normal condition she knew nothing whatever of the game and had but an imperfect acquaintance with the cards.

It should be stated that when a part of the picture was covered so that I could see but a part, her perceptions were limited to the part seen by me. I was, indeed, unable to trace any power of perception of anything not seen by the person with whom her mind was not at the time associated. She perceived behind her so much of the picture as was seen by me and impressed on my mind. She perceived the objects seen and touched by her servant upstairs and so impressed upon her mind. I had given no thought to the subject at that time; but taking it with much subsequent experience of similar phenomena, I am satisfied now that it was a case of what is erroneously called "Thought-reading," which will be fully treated of hereafter.

These phenomena continued for nearly two years, so that there was ample opportunity for observing them. Imposture was out of the question. Delusion was impossible. The occurrence was in a private family and witnessed by none but themselves and the attendant physician, whose sagacious explanation of it I have narrated.

I accepted his solution of the phenomenon, although not altogether satisfied with it, and some years elapsed before accident brought under my notice a case of *Artificial Somnambulism*. Then I discovered instantly the relationship, if not the identity, of the condition presented to me with that I had seen in my sister.

The cases may be multiplied into a volume, but in the small space that can be given here to any one branch of a great subject these must suffice. The *facts* of *Natural* Somnambulism, indeed, are not and cannot be disputed. Instances have been selected with purpose to show that the phenomena presented by the conditions, when occurring naturally, are identical with those exhibited when the condition is produced artificially. With their customary dogmatism, the Scientists denounced as imposture and delusion that which was familiar to all Doctors of large experience in cases of natural infirmity. Instead of availing themselves eagerly of such an easy method of investigation as was provided by the discovery

that Somnambulism may be induced in a great number of persons under conditions that permitted of experimental examination, as complete and satisfactory as that by which physical science had achieved its great discoveries, they sought to deter from inquiry by vilifying the inquirers; to discredit discovery by discrediting the discoverers; to denounce as dupes or as impostors all who dared to proclaim the finding of a new fact in nature not in strict accordance with their own narrow knowledge of nature's laws. Even the writer can remember the time when the facts and phenomena of Somnambulism were denied as vehemently, and with precisely the same arguments, as other facts and phenomena closely allied with somnambulism are denied now. He remembers when they who had investigated and asserted them were visited with the like torrents of abuse and ridicule, by precisely the same class of opponents, in precisely similar language, in the same journals, and with the same arguments. Yet he has lived to see these abused and ridiculed facts universally admitted into science as a part of its store of truths. Nor this alone. These very facts and phenomena are now actually cited to explain and discredit another series of equally allied phenomena, which are as vehemently disputed at this time as were the phenomena of Somnambulism then.

But so it has ever been—so probably will it ever be. Scientists are but men and partake in full measure of the weaknesses common to humanity. Dogmatism only appears in a more hateful aspect in them than in theologians because they *profess* perfect freedom of inquiry. To try to put down inconvenient facts and phenomena by persecution and prosecution compels the public mind to observe with sorrow the conspicuous difference between profession and practice, just where it would have been the least looked for.

CHAPTER IV.

ARTIFICIAL SOMNAMBULISM.

SOMNAMBULE is the name given to the subject of somnambulism.

Somnambules are really more numerous than the recorded cases of sleep-walking indicate. But few of the cases actually occurring are reported, for the Doctors have noted such only as presented some remarkable features. It was not until the discovery was made that Somnambulism may be induced by *artificial* means that it was found how many were the persons subject to this abnormal physiological and psychological condition.

Not only may the condition of Somnambulism be thus induced, but its phenomena also may be exhibited. Nothing, however seemingly marvellous, has been recorded of *Natural* Somnambulism which is not readily reproduced in *Artificial* Somnambulism. Its importance, therefore, in the investigation of Mental Physiology and Psychology will be apparent at a glance. In no other form are the forces that move and direct the Mechanism of Man placed so entirely under the control of the experimentalist and the student. It may be said, without exaggeration, that a *mind* is given to him for dissection. He may subject it to any test-examination he desires. The value of such a subject is incalculable. It opens to mental science that path of experimental research to which physical science is indebted for its progress and its prospects. It enables us to procure the

same ends by the same means and doubtless with the same profitable results. We are not presuming too much when we assert that the philosophy of all that part of the Mechanism of Man which is non-molecular, but which gives to the molecular structure intelligence, consciousness and individuality, may be learned by patient and painstaking examination of and experiments with Somnambulism, alike in its natural and in its induced condition.

Somnambulism, then, may be induced *artificially*. In whom? A Somnambule.

Although Somnambulism may be produced by contrivance, a *Somnambule*, like a poet, is born not made. He is possessed of some peculiarities of nerve structure, not yet sufficiently investigated. The brain is the bodily seat ot the affection, and the condition exhibits an abnormal relationship of the Conscious Self with the mechanism of the body. Somnambulism is not a disease nor the result of disease. It varies in intensity under various circumstances of the general health; but it is not a malady that comes and goes through external causes. It is a constitutional condition.

Experience has proved that about one person in four is subject to this affection. It bears no relation to sex, males being as sensitive to it as females. Age, however, has a manifest influence. The young are more sensitive than the old, children than grown persons. The period of puberty and the early years of maturity exhibit the most remarkable phenomena in both sexes.

A Somnambule cannot be discovered by any external sign. There is nothing in his aspect to indicate sensitiveness to the affection. No temperament, nor complexion, nor degree of intelligence, nor manner, nor state of health, is proved to be more liable to the influence than any other. The most experienced find themselves continually at fault in their estimates of a patient. The least promising are often the most susceptible.

Somnambulism may be induced artificially in many ways. However induced, the physiological process is the same.

It has been called by many names—as Mesmerism, Hypnotism, Animal Magnetism—but neither is unobjectionable. *Animal Magnetism* is a misnomer for, whatever the operating force by which the phenomena are produced, it is not magnetism nor has it any relationship to magnetism. The most delicate instruments have failed to show a special magnetic state in the most sensitive Somnambule. *Hypnotism* was the name given to it by Dr. BRAID, who maintained a theory as to its cause to which I entirely subscribe, while dissenting from his choice of a designation. "Mesmerism" was the name given to it after MESMER had revived its practice and startled the world by his discovery. But the Doctor was assailed as an impostor or a dupe and his patients as rogues or fools. Science denounced him and his investigations and would cheerfully have sent him to the stake as a wizard or to imprisonment as "a rogue and a vagabond." Fortunately he did not live in free England. Science has accepted now as truths and wields for its own purposes the very facts it then denied and denounced. But prejudices still linger about the name. A much wider application of its facts has been made by subsequent discoveries. A new name was desirable that should imply nothing as to causes, while giving to it a strictly scientific title. "Artificial Somnambulism" exactly describes the phenomena, without in any manner seeming to affirm their causes. But it is inconveniently long, and some misconceptions may attach to it.

To designate the condition itself I propose, therefore, for convenience of brevity, to adopt the shorter, though not quite satisfactory, name of *Hypnotism*.

CHAPTER V.

THE PHENOMENA OF ARTIFICIAL SOMNAMBULISM.

I. The Hypnotic State.—II. Cataleptic Phenomena.—III. Will Power.—IV. Community of Sensation.—V. Electro-Biology.—VI. Influence of Metals.—VII. Supersensuous Perception.—VIII. Phrenological Phenomena.—IX. Double Consciousness.—X. Mental Travelling.—XI. Action at a Distance.—XII. Mental Exaltation.—XIII. Medical Uses.

I.—The Hypnotic State.

The means are various by which the condition of Hypnotism may be artificially produced. Formerly, the opinion was universal, that it was due to some mysterious power or influence proceeding from the operator and the process was adapted to this assumption. Some employed motions of the hand, called "passes," without actual contact, directed from the head downward and continued until the signs of sleep appeared. Others were content to poke their fingers almost into the eyes of the patient, bidding him to stare at their tips. Dr. Braid, a Physician of eminence, found it sufficient for the patient to fix his gaze steadily upon some one object, as a wafer on a wall. After a period of such fixed gaze, and consequent concentrated *attention*, varying from ten minutes to an hour, the eyelids slowly fall and then close. The breathing becomes deep, regular, and slow. The head droops. The limbs relax. There is all the external aspect of profound sleep.

But it is not sleep. The senses are *wholly* suspended. In sleep, they are only dulled. In sleep, the nerves show

signs of sensitiveness. Impressions on the senses modify dreams. But by the Somnambule a pinch is not felt; a pistol discharged at the ear causes no emotion and is evidently not heard; the most powerful snuff may be applied to the nostril without a sneeze; the most nauseous flavour upon the lips causes no show of aversion. The eyelids are closed with a firmness not found in ordinary sleep and they can be raised only by great force. The eyes are then seen to be in an abnormal position, turned upwards and inwards, in a kind of inverted squint—a position in which no voluntary waking effort could place them and as they are *never* found in ordinary sleep. It is further important to note, that in such a condition of the eyes vision would be impossible, even if the lids were lifted, for the retina is removed out of the range of *any* ray of light reflected from an external object.

If the patient be now left to himself, he will continue in this state of insensibility for a time, varying with each experiment, occasionally even for six hours or more. Then he starts, opens his eyes and consciousness returns.

But he retains no memory whatever of anything that has occurred during the condition. Awakening from sleep, we have commonly, for a time at least, some memory of dreams that have attended the slumber. But the Somnambule is *never* conscious, in his normal condition, of anything without or within that attended his insensible and abnormal condition. It is to him an absolute blank. He is only not conscious that it is a blank because the moment of recovery seems to him but as the moment following the loss of consciousness, however long may have been the interval of oblivion.

Nevertheless, his mind was not a blank, nor was his memory altogether idle, as will be shown presently.

But if, instead of leaving the patient to waken at leisure from his seeming sleep, you intimate to him, by waving your hand before his face, blowing in his eyes or touching his forehead, that it is *your Will* he should awake, he starts, opens his eyes, stretches his relaxed

limbs and is himself again. But there is the same entire unconsciousness of the incidents of his hypnotic state.

Here we have the physical condition of natural Somnambulism produced artificially and so far there is nothing very remarkable. The difference between Somnambulism and sleep is, however, of great importance as a physiological fact, for it proves that there is a state, outwardly resembling sleep and therefore easily mistaken for it, which is not sleep. It is doubtless to the absence of recognition of this fact, and the consequent supposition that nothing was to be learned from it not already found in the phenomena of sleep, that the condition now under consideration has been so strangely neglected, alike by physiologists and psychologists, and that more advantage has not been taken of the light its remarkable features could not fail to throw upon those obscure problems in the Mechanism of Man, the existence of Soul, and, if it exists, its relationship to mind and body.

But if, instead of restoring the patient to consciousness, you by voice or touch merely indicate to him your *Will* that he should bestir himself, the condition changes. From a seemingly sound and senseless sleep he passes rapidly into a state of *apparent* consciousness. His muscles regain the natural tension of waking life. He moves and performs bodily actions as when actually awake. But withal he is not awake in fact. His eyelids are still firmly closed. His eyes preserve their unnatural position and are incompetent to perform the act of vision, even if the lids be lifted. The eyelids and eyeballs continue to exhibit the quivering movement described.

This is the peculiarity of the condition of Somnambulism, whether natural or artificial. This is the state that has been popularly termed "sleep," and which some physiologists and many doctors have really mistaken for sleep, but to which it has only the remotest affinity. It is a special condition of the brain and nerve system, to which the convenient name of *Hypnotism* has been given, and by that name it will be designated here.

When "Hypnotism" is spoken of, the Reader will remember that it is the name of the condition seen in *Artificial Somnambulism*. The term SLEEP will be henceforth strictly limited to that which is properly so called and of which we have nightly experience.

In this condition of *Hypnotism*, a series of phenomena are exhibited which have been the subject of fierce controversy while passing through the phases of hostility that are the invariable fate of *new* truths. When first asserted, they are vehemently disputed,—not after investigation, experiment and test—but by *à priori* argument to prove that they *cannot* be. But a fact remains a fact, in defiance of any quantity of mere argument, and will assert itself, how reluctant soever Scientists may be to admit that there can be any natural law or force not known to them. Thus the phenomena of Somnambulism, at first fiercely disputed and their assertors abused as knaves or ridiculed as dupes, have come to be accepted by Science as substantially true. They are, however, declared not to be *new* truths but to have been familiar to Physiologists under other names. But they have taken their place in Physiology among the recognised incidents of a rare and remarkable condition of the nervous system.

At this point of acceptance as *facts*, notice of them seems to have ceased. Their bearing upon Psychological Science has been neglected by the Physiologists and Physicians, with rare exceptions. There has been little curiosity to inquire what was the meaning of these strange and seemingly inexplicable phenomena; what light, if any, they throw upon the mysteries of Mind and Soul. Is it that our Scientists fear to ask, lest the answer should be fatal to their own pure Materialism? Or is it that their faith in Materialism is so firmly fixed that they deem it a waste of time even to hear *evidence* on the other side? Whatever the cause, while the facts and the phenomena of Somnambulism have been reluctantly accepted, their value as revelations of the composite Mechanism of Man, and the manner of its action, has been grudgingly admitted. To this

moment the phenomena have been but partially employed for the promotion of that knowledge of HIMSELF which is —or *should* be—the highest and most important object of man's researches.

The phenomena of *natural* somnambulism have been familiar to all the world, at all times; but superstition appears to have forbidden that close observation and careful experiment requisite for discovery of their nature and sources. Indeed, the Mechanism of Man as constructed of Soul and body, until very recently has been so imperfectly recognised as a *physiological* fact that attempts to explore the causes of any psychic or mental action of the organism would have been but wasted labour. Whatever was new and therefore strange, or seemingly mysterious, or inexplicable, was always then, as often now, disposed of by calling it "supernatural" and assigning it to the agency of spiritual intelligences. There can be no doubt that many of the ancient oracles were the utterances of somnambulism artificially induced. The accounts that have been transmitted to us of the Delphic priestesses show them to have been somnambules, speaking in a state of trance, such as may be witnessed by any reader who will undergo the labour of hypnotising any half-dozen persons among his family and friends. MESMER directed public attention to the phenomena of Somnambulism when induced artificially and his name was given to the process. It was first applied successfully to the cure of disease. As experiment proceeded, other remarkable phenomena were elicited. Then the popular world, unable to deny *facts* that were daily proved, set them to the account of a special power with which the operator was presumed to be endowed, some attributing it to angelic and others to diabolic agency. Few or none then cared to ask if *natural* causes might not be found for them.

Thus MESMER himself and his many followers in all countries, down to our own time, continued the practice of Artificial Somnambulism, believing that the condition was induced by the influence of "animal magnetism" proceeding from themselves, and directed by their own

Will power, by means of which sleep (or what was called sleep), was imposed. They taught that the force of the greater Will subdued the lesser Will and made the Somnambule the temporary slave of the operator.

Dr. BRAID, of Manchester, was the first to dissipate this delusion. At the time when the Scientists were most loudly proclaiming "mesmerism," as it was then called, to be a fraud, its practitioners impostors and its believers fools, Dr. BRAID bravely undertook its investigation, despite the abuse and ridicule to which he was subjected from his medical brethren. He was richly rewarded. He discovered that Artificial Somnambulism was not produced by any imaginary magnetism, nor by the Will of the operator, nor by any force proceeding from him, but that, in fact, it was a condition *self-induced*. The passes that were supposed to direct a magnetic stream—(whose very existence was unproved)—from the operator to the nerves and brain of the submissive patient were shown to be nothing more than *contrivances to concentrate the attention* of the patient. Metallic tractors had been used to convey, as was assumed, the imaginary "animal magnetism." But when tractors of wood, painted to resemble metal, were substituted the same results ensued. "Passes" were then abolished and the patient was directed to fix his eyes upon a penny-piece in his palm. The "mesmeric" condition was found to be thus brought about with equal efficiency and rather more speed than by waving the hand before the face or thrusting the tips of the fingers into the eyes.

The obvious conclusion from these decisive experiments is, that Artificial Somnambulism is not a condition imposed upon the patient by the Will of another; that it is not produced by any *force*, magnetic or otherwise, nor by any influence proceeding from another; *but that it is a condition wholly self-induced*. In what manner self-induced will be considered presently.

Here the attention of the reader is invited to the very instructive and interesting narrative of his own experiences, written by the distinguished chemist AGASSIZ, who submitted himself to be "mesmerised," as it was

then termed, purposely to ascertain what are the sensations accompanying the condition and especially the *mental* process by which it is accomplished. I borrow the translation by Dr. TUKE, in his valuable treatise on on *The Influence of the Mind over the Body in Health and Disease*:—

Neufchatel, Feb. 22nd, 1839. Desirous to know what to think of Mesmerism, I for long sought for opportunity of making some experiments in regard to it upon myself, so as to avoid the doubts which might arise on the nature of the sensations which we have heard described by mesmerised persons. M. Desor and Mr. Townshend (Rev. Chauncy Hare Townshend, M.A.) arrived here with the *Evening Courier*, and at ten p.m. Mr. Townshend commenced operating on me. While we sat opposite to one another, he, in the first place, only took hold of my hands and looked at me fixedly. I was firmly resolved to arrive at a knowledge of the truth, whatever it might be; and, therefore, the moment I saw him endeavour to exert an action upon me, I silently addressed the Author of all things, beseeching him to give me power *to resist the influence*, and to be conscientious in regard to myself as well as in regard to the fact.

I then fixed my eyes upon Mr. Townshend, attentive to whatever passed. I was in very suitable circumstances; the hour being early, and one in which I was in the habit of studying, was far from disposing me to sleep. I was sufficiently master of myself to experience no emotion and to repress all flights of imagination, even if I had been less calm; accordingly, it was a long time before I felt any effect from the presence of Mr. Townshend opposite me. However, after at least a quarter of an hour, I felt the sensation of a current through all my limbs, and from that moment my eyelids grew heavier. I then saw Mr. Townshend extend his hands before my eyes, as if he were about to plunge his fingers into them, and then made different circular movements around my eyes, which caused my eyelids to become still heavier. I had the idea that he was endeavouring to make me close my eyes, and yet it was not as if some one had threatened my eyes and in the waking state I had closed them to *prevent* him; it was an irresistible heaviness of the lids which *compelled* me to shut them; and by degrees I found I had no longer the power of keeping them open, but did not the less retain my consciousness of what was going on around me, so that I heard M. Desor speak to Mr. Townshend, understood what they said, and heard what questions they asked me, just as if I had been awake, but I had not the power of answering. I endeavoured, in vain, several times to do so, and when I succeeded I perceived that I was passing out of

the state of torpor in which I had been, and which was rather agreeable than painful.

In this state I heard the watchman cry ten o'clock; then I heard it strike a quarter-past; but afterwards I fell into a deeper sleep, although I never entirely lost my consciousness. It appeared to me that Mr. Townshend was endeavouring to put me into a sound sleep; my movements seemed under his control, for I wished several times to change the position of my arms, but had not sufficient power to do it, or even really to will it; while I felt my head carried to the right or left shoulder, or backwards or forwards, without wishing it, and, indeed, in spite of the resistance which I endeavoured to oppose; and this happened several times.

I experienced at the same time a feeling of great pleasure in giving way to the attraction which dragged me sometimes to one side, sometimes to the other, then a kind of surprise on feeling my head fall into Mr. Townshead's hand, who appeared to me for the first time to be the centre of attraction. To his inquiry if I were well, and what I felt, I found I could not answer, but I smiled; I felt that my features expanded in spite of my resistance; I was inwardly confused at experiencing pleasure from an influence which was mysterious to me. From this moment I wished to awake, and was less at my ease, and yet, on Mr. Townshend asking me whether I wished to be awakened, I made a hesitating movement with my shoulders. Mr. Townshend then repeated some frictions, which increased my sleep; yet I was always conscious of what was passing around me. He then asked me if I wished to become lucid, at the same time continuing, as I felt, the frictions from the face to the arms. I then experienced an indescribable sensation of delight, and for an instant saw before me rays of dazzling light which instantly disappeared. I was then inwardly sorrowful at this state being prolonged; it appeared to me that enough had been done with me; I wished to awake, but could not. Yet when Mr. Townshend and M. Desor spoke I heard them. I also heard the clock, and the watchman cry, but I did not know what hour he cried. Mr. Townshend then presented his watch to me, and asked if I could see the time, and if I could see him, but I could distinguish nothing; I heard the clock strike the quarter, but could not get out of my sleepy state. Mr. Townshend then woke me with some rapid transverse movements from the middle of the face outwards, which instantly caused my eyes to open, and at the same time I got up, saying to him, "I thank you." It was a quarter past eleven (about an hour having elapsed since I passed into the mesmeric state). He then told me, and M. Desor repeated the same thing, that the only fact which had satisfied them that I was in a state of mesmeric sleep, was the facility with which my head followed all the movements of his hand, although he did not touch me, and the pleasure which I appeared to feel at the moment when, after several repetitions of

friction, he thus moved my head at pleasure in all directions.—AGASSIZ (lxxxviii., p. 388).

The Professor experienced only the incipient stages of the condition. He did not lose consciousness, although his Will was paralysed. Repeated trial would doubtless have thrown him into the further phases. Few persons are brought entirely into the hypnotic condition on the first experiment. Once established, however, it is readily reproduced, insomuch that, with sensitive patients, it may be evoked by an almost imperceptible suggestion from any person accustomed to experiment upon them. I knew a lady who, at a glance of the eye or a mere wave of a finger from the other side of a dinner-table, suggesting the condition to her, passed instantly into the hypnotic state, even when surrounded by company. A similar suggestion instantly restored her to consciousness. It is asserted that the mere silent Will of the operator, without any external expression of it conveyed to the patient, can induce the hypnotic condition. I have witnessed the experiment, but never was it successful. *After* hypnotism induced, the Will of the operator can undoubtedly be conveyed to the patient without visible or tangible expression. But for purpose of inducing the condition itself, the patient being in his normal state, I am satisfied that an intimation of the desire must be conveyed to him by sign, or look, or something that suggests the action, or there must be knowledge by the patient that at such a time and in such a place the condition would be expected to recur.

The process by which Artificial Somnambulism is induced is by *fixing the attention*. The first step to this is to fix the eye. If the thoughts wander—if the mind is busy receiving external impressions, or forming ideas, the condition cannot be induced. So, likewise, a resolutely *resisting Will* can oppose itself successfully to the influence. The weakness of the patient's Will is the measure of his capacity for Somnambulism. A strong Will is with difficulty affected. A weak Will is readily

hypnotised. It must be noted, however, that *the Will is not the Intelligence.* A powerful intellect may have a weak Will. The smallest mental capacity may be associated with a most powerful Will. Hence the patients subject to Artificial Somnambulism are not to be sought with any reference to mental or moral endowment. Experiment may discover a ready patient in a man of genius, as was shown in the case of AGASSIZ, narrated above, and find a hopeless one in a fool. Somnambulism is *paralysis of the Will,* and according to the power of the Will to assert itself so is the resistance of the patient to the process by which it is paralysed.

It is in this impassive condition of the Mechanism of Man that phenomena present themselves which have the highest interest for the Psychologist, as tending to throw a blaze of light upon the mutual relationships of Body, Mind, and Soul. What, then, are these phenomena?

The instant effect of the suspended Will (which is the temporary severance of the Conscious Self from the material mechanism of the mind) is to leave that mechanism uncontrolled and for the time inactive. If roused to action, it is an action without intelligent direction and command.

The first remarkable result of this state of suspended Will, and the consequent uncontrolled condition of the mental mechanism, is its subjection to the control of the Will, and sympathy with the mind, of any other person who may come into that mental association with the patient for which our language has no appropriate term, but which the French express in graceful phrase as being *en rapport.*

It was believed by the early investigators of Artifical Somnambulism that the only person whose active Will could thus take the place, as it were, of the suspended Will of the patient and control and direct the action of his mental mechanism, was the *operator* by whom the condition had been produced. But experience has proved this to be an error. As the operator is *en rapport* with the patient when passing into the hypnotic

state, he necessarily has the first control. But if he withdraws and any other person takes possession of the patient, the new Will is equally effective.

In the majority of cases, the operator needs not to convey his Will by words nor by external signs. It suffices that he has a definite idea in his own mind and *desires the patient to feel and act in accordance with it.* For instance, he Wills that the patient shall take a certain book from the library. If the patient had been in his normal condition, how would this have been communicated? The operator would have conveyed his Will by the *words*, "I command you to bring me such a book from that library;" that is to say, he would have suggested to the patient's mind, by the *words* "book" and "library," the *ideas* of the place and thing; by the words "bring to me" the idea of the bodily action and by the words "I command you" the sense of compulsion. There is no likeness in any of these *words* to the ideas they are designed to suggest. But the mind has been educated to associate those ideas with the expressed sounds, and thus, when those words are spoken the ideas linked with them come into the mind of the hearer. The difference between this process—which seems simple only because it is so familiar to us—and the process by which the operator suggests the same ideas to the same patient in the hypnotic condition is merely this—that the suggestion of the ideas existing in the operator's mind is made to the mind of the patient by some other impressing medium than the *sounds of words.* The senses of the patient being suspended in somnambulism, the normal medium of language is lost to him. What is the substituted medium for the suggestion we do *not* as yet *know*; we can but conjecture. There is, however, no reason to despair of discovering it, if patient investigation be made by largely collecting the observed *facts.* This is one of the many practical tasks that will be imposed upon the Psychologist of the future, when basing his Science on *facts* instead of logic, on physics instead of metaphysics.

The phenomena resulting from this exercise of the Will of the operator upon the patient—who has no Will and no consciousness, who is, in fact, merely an animated machine—are very curious. Whatever ideas the operator *suggests* to the mind of the patient are impressed there, precisely as if they had been brought by the senses from without or were self-produced within. The ideas so suggested influence the other mental faculties exactly as they would have done if self-conceived. As thus. The operator suggests that the patient cannot lift his foot from the floor, and he is unable to do so, strive as he may. If the hand of the patient is placed upon the hand of the operator, with the like *suggested idea* that it is fastened there, the patient cannot withdraw it and may be dragged round the room, as if his hand had been actually bound to the other by an iron chain. Suggest that the chair on which the patient sits is on fire, he rushes from it with expressions of extreme terror; that it is very cold, and he shivers and buttons his clothes tightly; that it is very hot, and he takes off his neckerchief, opens his collar and fans himself; that he has a baby in his arms, and he performs the act of nursing; that a wasp's nest is about his ears, and he exerts himself vehemently to beat off his imaginary foes. Offer him a coin, suggesting by your silent mental act that it is hot; he drops it with a cry of pain.

An experiment often tried and always successful is to present a glass of water, willing it to be to him as wine. The patient drinks it as wine, smacking his lips with unequivocal pleasure. Take it and again offer it to him, willing it to be to him as medicine; he will taste, and reject it on tasting, with unmistakeable disgust. The same glass of water may in this manner be proffered, with a change only of a silent suggestion as to its contents, until all liquids known to the patient are exhausted, and he will still accept each one as being that which the operator had silently desired that it should appear to him to be. Not only does he protest that it is the thing it was represented, but his actions

show that it was believed by his dreaming mind so to be.

The *rationale* of this phenomenon, once deemed so wonderful as to be denied by the Scientists, on the familiar plea that it was *impossible,* is now apparent. It is not that the glass of water was changed to the actual nerves of *sense,* but that, the senses being sealed and the Will paralysed, the mental mechanism was thrown into the same condition as with all of us in dream. The *ideas* of wine and medicine were suggested by the mind of the operator to the mind of the patient; therefore he dreams that he is drinking wine and medicine. Then, as in ordinary dream, the ideas thus generated in the mind itself are mistaken for realities and accepted as real. *But the Somnambule, unlike the dreamer, acts the dream which, if he had been merely asleep he would have believed that he had acted, although he did not act it.* Precisely as *we* see him doing *he* is *dreaming* that he does. In ordinary sleep, dreaming that a glass of wine and then a black draught had been given to him, he would have tasted them in fancy; the Conscious Self would have accepted it as a fact that he had *really* tasted them. But, his body being quiescent, the mental process would not have been seen by the spectator, as it is in the Somnambule, who not only dreams but acts his dream. This will, I hope, make clearly intelligible to the reader the difference between the mental conditions of Sleep and Somnambulism. I repeat the conclusion, for it is all-important to knowledge of Psychology.

In Sleep, the dreamer believes the dream to be a reality and that he is acting the *dream;* but he does not act it. *In Somnambulism,* the patient believes the dream to be real, *and acts it.*

In brief, *the Somnambule is a dreamer who acts his dream.*

To understand the phenomena of Hypnotism, it must be distinctly in the mind of the observer that the senses of the Somnambule are closed against all impressions from without. No intelligence is brought to him by them. The entire of the information received by his

mind appears to come through the mind of the operator. When that communication ceases, the patient is again silent and motionless. In this state he continues from two to eighteen hours. He then wakes as from sound sleep, wholly unconscious of the existence he has passed in the hypnotic state, with no memory of any dream, with no sense of the flight of time (as in ordinary sleep), but refreshed and invigorated in mind and body. Whatever be the condition, it is manifestly conducive to the well-being of the patient and powerfully promotes the return of the sick to health.

However long the trance, there is, when wakened from it, perfect unconsciousness of the state itself and of all that occurred in it. The memory of the waking life revives at the very point where it was suspended. To the mental contemplation of the patient there has been no break in it.

A curious characteristic of this condition is that, whensoever it recurs, the memory returns, not only of the incidents of the last hypnotic trance, but of all that had passed in the like state previously. The present state appears to the Somnambule to be in continuous action with past like states, as if no waking intervals had interposed. Thus he lives, as it were, *two* lives and has *two* distinct memories. In his normal state, he remembers the incidents of his past waking life, but none of his hypnotic life. In his hypnotic state, he remembers the incidents of his past hypnotic state, but nothing of his waking life. In neither condition has he memory of anything that occurred in the other. In this, also, Somnambulism differs altogether from the state of sleep.

Roused by the operator, the patient *appears* to waken to consciousness and active life. But that life is little more than automatic. It continues so long only as the operator continues to exercise his Will and so to keep, as it were, the mind of the patient in motion. The patient is conscious and acts in sympathy with him and for him only. The profound interest attending this condition arises from the question, that at once presents itself to

the Psychologist, what is the action of the one mind upon the other mind by which this remarkable relationship is brought about? What is the influencing power? How does it operate? By what physiological or psychological process does my mind convey its *Will* and even its ideas to the mind of the Somnambule without the medium of speech, or sign, or any appeal through either of the five senses?

That is a problem which no theory of Materialism can solve. No mere molecular mechanism can accomplish it. When one human *body* acts upon another human *body*, we know precisely the medium by which it is accomplished and we can measure the force and its effects. "Action at a distance," motion without contact, direct or indirect, with something else in motion, is pronounced by the physicists to be impossible. But in Somnambulism and some other abnormal conditions of the mechanism of Man we see what *appears* to be "action at a distance"—motion without contact—one mind moved by another mind. If the physicists are right in their assertion, something must be operating between the two brains, by which motion is conveyed from the one to the other? What is that medium? True, it is imperceptible by any sense, but not the less must it exist, for its existence is proved by its effects. If not this, then there is something other than the material mechanism by which this intercourse is conducted.

This action of mind upon mind—by some other than a material process of the molecular mechanism—may be witnessed and experimented upon to any extent by the student when the state of artificial Somnambulism is established. It will be considered in a future chapter.

II.—Cataleptic Phenomena.

It is as yet an unsolved problem by what process it is that the relationship, called by the French *en rapport*, is established. The patient is in a state of profound stupor, of absolute inaction and unconsciousness. The mind, but

not the body, is wakened to active existence by the Will of the person desiring to exercise such control. This Will is usually expressed by words of command or by signs. With very sensitive patients the mere mental exercise of the Will suffices. If by any accident two persons are thus placed *en rapport* with the Somnambule, the strongest Will prevails, after a brief conflict in which the struggle of the double influence is distinctly perceptible. The relationship once established, the results are instantly exhibited.

As already stated, the eyes of the Somnambule are firmly closed, the eyeballs being turned inwards and upwards, quivering incessantly. This is an unfailing test of the reality of the condition. It cannot be assumed by any effort of the Will.

The limbs are relaxed before the mind is wakened by the operator. At his command the patient is roused. He lifts the arm, draws his hand slowly over the muscles from the shoulder to the wrist and forthwith the whole limb is stiffened as if it had been turned to stone. The whole body may be affected in like manner. In what position soever any muscle is placed, there it remains until released by another exercise of the Will of the operator. Whatsoever the cause, the patient endures the consequence without any sense of pain or inconvenience. A posture of the limb which would, in ten minutes of the waking state, cause intense pain, and which the strongest man could not endure for a quarter of an hour, is maintained by the weakliest patient for an indefinite time and without fatigue or pain.

This rigidity of the limbs (in fact an artificial *catalepsy*) is shown in many curious experiments. Try to hold by one end a heavy steel poker at your arm's length and you will drop it in unconquerable weariness in a few minutes. Place the same in the hand of the Somnambule, stiffening his extended arm by "passes," as above described, and it will be sustained by him for any time the condition continues. Not only do the muscles endure this tension without failing, but no sense of pain

or fatigue follows. The fact seems to confirm the theory, broached long ago, that weariness is not of the body but of the mind.

This cataleptic condition may be limited to any limb or extended to the whole frame, at the Will of the operator. So rigid are the muscles, that the body may be extended between two chairs, the head resting on the edge of one, the heels on the edge of the other, and not only will the body sustain itself thus indefinitely, but it will bear, without bending and without distress, the weight of one person or more sitting or standing upon it. In the waking state, the strongest man could not preserve such a position for a single minute. Consequently, it cannot be an imposture, as it has been called by some who had never witnessed it. The cause may be wrongly assigned, but the fact is clearly proved. Nor is it a rare phenomenon. It is exhibited by four-fifths of the patients, and probably would be found in all, if the experiment were properly tried.

This condition of *catalepsy* is induced *apparently* by the act of passing the hand slowly down the limb to be affected. This action of the hand is commonly supposed to transmit from the body of the operator to the body of the patient an unknown something, conveniently termed "Animal Magnetism." But another solution of the problem appears to me to be more rational. The true active influence is the *Will of the experimentalist*, expressed by the act of the hand. It is the *Will* and not the hand that is obeyed.

The rigidity of the muscles is usually relaxed by reversing the motion of the hand. But it is the Will that operates, this action of the hand being accompanied by and expressing the action of the *Will*.

The following case is reported by Dr. GREGORY, Professor of Chemistry in the University of Edinburgh:

Mr. J. H., a young and healthy man, could be rendered instantly and completely cataleptic by a glance, or a single pass. He could be fixed in any position, however inconvenient, and would remain ten or fifteen minutes in such a posture that no man in a natural

state could have endured it for half a minute. Thus he stood for about ten minutes, fixed and rigid, the eyes insensible to light, on one foot, the body lying horizontally, the head forward, the other foot stretched out behind. He was made to place his feet without shoes, the toes pointing in opposite directions along the wall, and the feet resting on a narrow foot-board, about two inches wide, while his back was placed flat on the wall, and the arms stretched out like a cross. In this awkward position, he was rigified and fixed by a pass or two, and stuck there at least five minutes. Mr. Lewis then demesmerised the upper parts down to the knees, when Mr. H. felt in great danger of falling off; but the feet adhered so firmly to the foot-board, that I could not move them. When the feet were demesmerised, he instantly fell down in a heap in our arms. He was made to go down on all fours, and in this position rendered rigid, so that, with all his efforts, he could not lie down on the floor.

III.—Will Power.

The Somnambule is a person whose mental mechanism is in a perfectly passive state, the action of the senses and the Will being for a time suspended. By reason of this temporary paralysis of the Will he has ceased to direct the material mechanism of his mind and body. We have before us a mental Mechanism, capable for the work of mind, but the power is suspended that, in the normal condition of the mechanism, sets the machine in motion and directs its motions.

In this state of mental paralysis, the passive machine is moved and directed by any other mind or psychic force brought to bear upon it. *Any* active mind placed *en rapport* with the *passive* mind of the Somnambule can, by the exercise of its own Will, set in motion, and to some extent control, the action of that passive brain.

The manner in which this process, so improperly called "Thought-reading," is effected will be considered hereafter. Here we deal only with the facts and phenomena.

The operator exercises an act of *Will*. He desires the patient to move, speak, do. This may be expressed by words, or signs, or tacitly by the mind. Immediately, the patient seems to wake as from sleep. He recovers the attitude of attention; he resumes the control of his limbs. But his senses continue closed to the outer world.

His eyes are closed and preserve the position and the quivering characteristic of Somnambulism.

All patients are not equally sensitive. Some are instantly and wholly obedient to the Will of the operator. Some obey slowly; some partially. But all become more sensitive and submissive by practice.

As the operator *wills* him to do, so the patient *does*. He goes hither and thither, follows or recedes, stops or advances, in accordance with the unexpressed desire. There is perfect community of *idea* as well as of feeling. His perceptions are obtained only through the person *en rapport* with him. Whatever ideas come into the mind of the operator are instantly present also to the mind of the patient. The Mind whose Will is paralysed is moved and directed by the Mind whose Will is active.

This fundamental condition and special feature of Somnambulism will be found to explain the greater portion of the phenomena presented. Its physiology and psychology will be considered hereafter.

Of this phenomenon Dr. GREGORY thus reports:

Mr. B. was discovered by Dr. Darling to be susceptible, at the house of a well-known and popular authoress. He was so obliging as to meet Dr. D. and a large party at my house. There he exhibited many of the effects above described, chiefly, however, the control of Dr. D. over his movements, sensations, perceptions, and memory. His movements were controlled in many ways, which it is unnecessary to repeat. But what rendered the case peculiarly interesting was, that he described his feelings, and reasoned on every experiment as it was made; and told us that, in spite of perfect consciousness, he found it impossible, by any efforts, to resist the suggestions of the operator. He was made to forget his own name, or that of any other person; to be unable to recognise persons whom he knew quite well; to forget and be unable to name a single letter of the alphabet. It seemed to him as if he saw the letters in motion, but could not lay hold of one of them. These experiments were very painful to him, and he informed me, that when thus compelled to forget his own name, not only was the sensation most unpleasant, but he felt ill for a day or two in consequence.

IV.—COMMUNITY OF SENSATION.

There is complete community of *sensation*. What the

one feels the other feels. Pinch the operator, the patient winces. A whisper in the ear of the one is heard by the other. The patient sneezes if the operator takes snuff. What the operator sees, and seeing has in his mind, the patient has in his mind and thinks he sees.

This and some others of the experiments reported here are not satisfactory when witnessed by a spectator merely, because of the natural suspicion of collusion and the impossibility of disproving it. The student can only be *assured* that they are genuine by becoming himself the operator. Fortunately, there is little difficulty in doing this, for patients may, by perseverance, be found in almost every household.

V.—Electro-Biology.

But the mind of the Somnambule is not wholly dependent for action on the mind of the Operator, although it seems as if only thus it can be set in motion. There is apparently a stage of the condition when the paralysis is not perfect. Then we have the state that has been so absurdly called "electro-biological," but which has no connection with either "electricity" or "biology." More than any other of the phenomena it resembles those seen in *Natural* Somnambulism.

The process by which this condition is induced is the same as described above, namely, fixing the attention of the patient by fixing his eyes. The operation may be performed with many patients at the same time more perfectly than with few, proving how little a supposed "magnetic" power in the operator is concerned in it. Call a crowd of strangers upon a platform. Place a metal disc in the hand of each—set him or her to fix the eyes steadily upon it. In a quarter of an hour, one in about four or five will be seemingly asleep. A strong expression of command recals them to the attitude of waking; but not to actual waking life, for the senses remain closely sealed, the eyes are firmly closed, and there is no consciousness. The mind being thus made passive, the operator suggests some imaginary circum-

stance, as that the chair is on fire, that there is a wasp's nest near, that it is very cold, or very hot, or that an angel is looking down upon them, or that they are in a church. At once each one accepts the suggestion so made. All act with wonderful perfection the part they would have acted had the suggested occurrence been real. In fear of the imaginary wasps they rush to and fro, covering the ears with coat or handkerchief. To the ideal angel they bend or kneel with the most profound expression of veneration in face and form. At the suggestion of cold every coat is closely buttoned, the hands are thrust into the pockets, and they stand shivering as in a polar wind. Or if heat be intimated, the coat button is loosened, the necktie is thrown off, and they vigorously fan themselves with hat or hand. These experiments may be varied infinitely at the pleasure of the operator, and always with the same results. A remarkable feature of the phenomenon is the rapidity with which the influence works, the unanimity of action among a numerous party of patients, and the admirable perfection of the acting, which surpasses anything to be seen upon the stage in the completeness of natural expression. And these are not rare nor exceptional phenomena. They characterise all patients, with few exceptions, and equally upon the first, as after repeated, experiment, proving that it is not a lesson learned but the natural expression of an actual mental idea. Bidden to go to a certain house and take a certain book from the bookcase there and bring it to the operator, the patient with closed eyes instantly runs, jumping over seats, thrusting aside all obstacles, threading his way through the crowded streets; he selects the right book from the array upon the shelf, still without the help of sight, and returns with it as he went. I witnessed one of these strange exhibitions at one of our naval arsenals. The persons who offered themselves for experiment were chiefly soldiers and sailors—the hardiest of men, and therefore not subjects of that hysterical condition to which the phenomena have been attributed

by some medical authorities. They were even more sensitive than others. The condition was more readily induced and they were more perfectly under the influence of the operator's Will. None of them had witnessed anything of the kind before. They were wholly ignorant of what was to be done. I was not content with the experiments suggested by the operator. I proposed many, which were at once adopted; but the result was the same. I found, however, that in this, as in all the forms of Somnambulism, it was a necessary condition that the suggestion should pass from the operator to the patient. No Will nor desire of mine, however loudly expressed, had the slightest effect upon the patients. It was manifest that they had no cognisance of my voice or even of my presence. Their ears were as closed as were their eyes. But when I whispered my wish to the operator, so far off from them and in a tone so slight that the keenest ear among them could not possibly have heard it, as also when I wrote the request and it was silently read by him, at once, before a word was spoken, all were playing the same new part, showing that the suggestion came to them simultaneously, although widely separated and so far from me that, by whatever sense conveyed to them, it was certainly not through the ear.

These are a few only of the facts of that form of Somnambulism known as *electro-biology*. Its Psychology will be examined in another chapter.

Some authenticated cases are appended. The first was reported by Col. GORE BROWNE, the patient being an officer and Dr. DARLING the operator.

He was found, in about two minutes, quite susceptible or impressible. His muscular motions were controlled in every possible way. He was rendered unable to raise his hands, or to let them fall; he was made unable to move one, while he could move the other; unable to sit down or to rise up; or to take hold of let go an object. One arm was deprived of sensation, or both arms, or the whole frame. He was made to feel a knife burning hot, and the chair on which he sat equally so. When he started up, he was made to feel the floor so hot that he was compelled to

hop about, and wished to pull off his boots, which burnt him. He was made to feel the room intolerably warm, and actually perspired with the heat; after which he was made to feel it so cold, that in a minute or two he buttoned his coat, and walked about rubbing his hands. In about five minutes his hand was really chilled, as I found, like that of a person exposed to frost. He was made to forget his own name, as well as that of Col. Gore Browne, who was present, and to imagine Col. B. a total stranger. He was compelled, for a time, to give a false answer to every question asked; and then was forced to give true answers to every question, in spite of any effort he might make to do otherwise. He was told he was on duty, at drill; and began to give the word of command, as if in the barrack-yard. He was compelled to sing and whistle, in spite of himself; to laugh immoderately, and then to feel sad, and even to weep, all in spite of his own will. He was told that a stick was a gun, and with it he shot and bagged a grouse, which he was made to see before him. He was told the pianoforte was a horse, and after feeling and closely examining it, he specified its points and defects, and appraised its value. He tasted water precisely as was suggested to him, as lemonade, tea, or wormwood. He was told that Dr. D.'s hand was a mirror, and in it he saw himself with a black face, as Dr. D. told him to do. He was made to look at his watch, and then convinced that it pointed to a different hour from the true one. He was then made to believe the watch to be a daguerreotype of Col. Browne, and again of a lady. Dr. D.'s empty hand became a snuff-box, from which he took a pinch, which made him sneeze violently, and this passed into a most severe cough, as if he had inhaled snuff, which sensation was not removed for about half an hour. He was made to go to sleep in one minute, and in his sleep to be deaf to the loudest sounds. He was made to see, in Dr. D.'s empty hand, a bank note for £10, to read its number, to fold it up, and put it in his pocket. And when afterwards asked, he declared he had done so, and was surprised not to find it there. He was rendered quite unable to jump over a handkerchief laid on the floor; and was compelled, according to Dr. D.'s command, and in spite of every effort, either to come down on it, or on one or other side of it, or straddling across it. In every one of these experiments, Mr. W. was quite aware that the suggested idea was false, but found it impossible to resist the impression. About fifty persons were present, including Sir David Brewster, and other men of science.

Dr. GREGORY reports of two lads who were subjected to experiment for the first time by Mr. LEWIS:

Their sensations and perceptions were entirely under control. When they drank water, and were told that it was milk, coffee,

rum, whisky, or wormwood, they tasted it as such. Nay, after drinking it as whisky, they were told that they were drunk, and in a minute or two became, in every particular, very drunk indeed. The expression of the face was perfectly that of intoxication, and they could not walk a step without staggering or falling. They were easily made, by suggestion, to fancy themselves any other persons, and acted in character. They shot, fished, swam, lectured, and exhibited every feeling suggested to them. They were as easily made to suppose a stick to be a gun, a rod, a sword, nay, a serpent; or a chair to be a tiger or a bear. From these animals they fled with extreme terror. They were made to see, hear, and feel a dreadful storm, and to creep for shelter under a table or a chair, supposed by them to be a house. From this they were soon expelled by the serpent, or by the flood rising, when they swam lustily for their lives. This was the first time that either of them had been tried; and the control exercised by Mr. Lewis over their sensations, perceptions, and emotions was perfect, although their consciousness was entire. They knew the suggested impressions to be false, but could not resist them. It was most interesting to watch closely their countenances, when an object, for example, a handkerchief, was placed in the hand, and after they felt quite sure of what it was, they were told it was a rat, &c. The gradual change to doubt, from doubt to certainty, and from that to disgust or anger, was inimitable, and conveyed at once, to those near enough to see it, complete conviction of their sincerity.

Some little light is thrown on the mental operation by the following:

Mr. F., acted on by Mr. Lewis in the presence of ten or twelve persons, of whom I was one, exhibited several of the phenomena. He was sceptical at first, but soon found that his perceptions were under control. For example, an apple was given to him, and he was then told it was an orange. At first he denied this, but by degrees he began to feel doubtful. At last he said, "It is certainly very yellow" (it was dark brown). He then took a sly glance round the company, each of whom had an apple, but found them all yellow too. He next cut out a piece with his finger, looked at the inside, smelt and tasted it, and concluded with, "Well, it *is* an orange, but yet I know I took an apple into my hand."

VI.—Influence of Metals.

A Somnambule is singularly sensible to contact with metals, distinguishing them instantly by touch. Repeated

experiment has shown that the sensations experienced are those of degrees of *heat*. It is not a fanciful impression, for the like sensations are described by all. Lead causes a sensation of positive coldness, iron of pleasant warmth, silver of endurable heat; but gold is dropped instantly, with the exclamation, "It burns me." It is not a fanciful impression, for the result is the same if the hand is placed behind the back or thrust through a hole. Of course it is only a sensation resembling that of heat or cold. There is no thermometric difference. But the fact raises some interesting questions, which physiologists might usefully follow to their conclusions, as to the nature of the sensations of heat and cold. The rigor that attends upon blood-poisoning is a familiar instance how the sense of cold may exist without its actual presence. Doubtless the abnormal sensations of the Somnambule, when in contact with metals, are of like character.

VII.—Super-sensuous Perception.

The Somnambule possesses to a great extent the remarkable faculty, treated of in another chapter, to which I have ventured to give the descriptive name of "Super-sensuous perception;" meaning by this term a capacity in the mind, under certain abnormal conditions, to obtain perceptions of the external world by some other medium than those nerves of the senses which, in the normal state of the mechanism, are the media employed in receipt and conveyance of impressions made by the world without. As will be then seen, there can be no doubt of the *fact* of such abnormal perception. No fact in nature or science is established by more abundant *proof*. It is disputed by the Materialists, of course, for it goes far to disprove their doctrine. But mere dogmatic denial is no answer to *evidence*, and in no case do they base denial on actual experiment. They have never seen nor tried the phenomena they dispute. They contend only that, being

opposed to their theory, it *cannot* be; therefore they will not condescend to investigate what they deem to be impossible. The position is not new. It has been the practice in all ages and countries.

A Somnambule, with closed eyes, can perceive objects beyond the range and out of the line of vision had the eyes been open, and even although opaque bodies are interposed. The French name given to this abnormal faculty (*clairvoyance*) is open to the objection that attaches to the majority of the names that have been used in Psychology. The term, which means *clear-seeing* or *clear vision*, assumes that the faculty is a power of extended *vision;* that the eye or its mechanism actually *sees*, in some mysterious manner, and that the mind is informed through the nerves of *sight*. This assumption has given a vantage ground to opponents by enabling them to evade more troublesome questions. A neutral name should always be found for a scientific fact. If this had been done at the beginning with the phenomenon now under consideration, science would have been spared a vast amount of irrelevant and useless controversy. The term *Super-sensuous Perception* avoids all this trouble, for it assigns no *cause* for the fact it names. It means merely what it implies—that in certain abnormal conditions of the human mechanism the mind obtains perceptions of external objects by some other medium (as yet untraced) than that mechanism of the senses by which alone, in the normal condition of the structure, mental perception is obtained.

That this perception is not obtained by an increased sensitiveness of the nerves of sight, as some have contended, is conclusively proved by a multitude of experiments. If the eyes be covered with wool and bandaged, or the lids fastened with sticking plaister, so that no ray of light can by any possibility penetrate to them, this perceptive power of the mind is not at all impaired. Howsoever achieved, it is manifestly not through the eye nor by impressions upon the nerves of vision.

In this state the contents of closed packets are read.

The pages of a book or a newspaper are perused with bandaged eyes as readily as if the eyes were open. Events occurring at a distance limited, indeed, but beyond the range of vision, are perceived and accurately described. Distant places, which the Somnambule has never visited, are pictured with sufficient accuracy to be at once recognised. I have *repeatedly* seen a child read an advertisement column in the *Times*, her eyes being bandaged by a sceptical and experienced doctor who warranted her *not* to see. I have played cards many times with a Somnambule, my servant, whose eyes were covered by cotton wool and four handkerchiefs, yet never did he make a mistake as to the cards he held or as to those in my hand. If I played the wrong card he would say, "You have the king" (or, as it may be), "you must play it." He named the cards dealt before they were taken up. He repeatedly read words inclosed in four thick envelopes. Once he said that five figures, naming them, were under some wafers with which I had fixed a series of almanacs to the wall. Removing them, I found under five layers the figures he had named.

These and similar phenomena noted by others have been opposed by a legend current that some banker somewhere had placed a bank note in an envelope, offering to give it to any Somnambule who would read it; but none had claimed it. In the first place, is the story true? Who was the banker? How was the note inclosed? Where was it deposited? How were the conditions made known to the Somnambules whilst in the hypnotic state, for they have then no memory of anything done in their normal state? But even if the story be true, it is necessary to learn precisely how the bank note was laid, for if folded over and over upon itself, it could not possibly be read even by a Somnambule. The object presented to the mind by his abnormal power of perception in no way differs from the same object presented through the medium of the eye. If a bank note, or any matter written or printed on semi-transparent paper, or other like material, be folded upon itself so that the lines

of writing cross in opposite directions, the keenest eye cannot read it. So it would be with the Somnambule. He would see, precisely what we should see, merely a confused mass of crossing lines and curves, but no definite shape of letters. This explains the failure of Somnambules to read a folded bank note in a box, if, indeed, the whole story is not a fiction. It explains also why one of the conditions of reading enclosures in envelopes and such like is that the paper containing the words to be read shall be laid flat and not folded. As our eyes could not read a folded writing, so neither can the perceptive faculty—whatever it be—of the Somnambule.

In *Natural* Somnambulism the patient performs with accuracy and rapidity the work of waking life. In darkness and with closed eyes he reads, writes, threads his way through crowded rooms without tripping, walks in dangerous places without falling. In Somnambulism *artificially* produced the same phenomenon is exhibited. I had a man-servant who, when hypnotised, with eyes bandaged would go to the pantry, collect the tea-things, fill the tea-urn, cut the bread and butter, carry the tray with all the tea equipage up a dark staircase and lay out the table, without erring, or tripping, or breakage. When wakened, he had no memory of what he had done. If he chanced to be hypnotised at the hour for the meal, on the instant he would exclaim, "It is time to get the tea; I must go." He went in his hypnotic condition and performed his task with closed eyes.

The Rev. A. GILMOUR, a highly respected clergyman of Greenock, is the reporter of the following case. The Somnambule was a servant, aged 18. Among many other phenomena exhibited by her and carefully observed and noted by her master, was that of perception far beyond the range of the senses:

I may state (he says) that during the summer, Dr. T——— of K———, Mrs. T———, and her two daughters, visited me. On the day that they left, I requested him to take notice of all that was doing in his house at 11 o'clock of that same night, and I

would visit him, through my clairvoyant. I did so, and dispatched to the Doctor, by the next morning's post, my questions and her answers, stating that the Dr. and Mrs. T. were in a small parlour; that it was lighted by a gas jet from the mantelpiece; that Mrs. T. was sitting at the table with a book before her; that she had a turban on her head; that she had a dress of an uncommon kind, which she described; that the Doctor was standing in the room; she described his dress; that one little Miss was in a small bedroom off the parlour, and that another little Miss was in bed with the servant in a room at the head of the stair. I may state that she had never been in K. in her life. By return of post, the Doctor acknowledged the receipt of my letter; stated that Mrs. T. was dressed in the peculiar manner described, and that everything which I had stated was true; but he informed me that he was playing upon the flute, and expressed his unwillingness to believe in the possibility of any person telling what was doing at such a distance.

Another case is reported by Dr. GREGORY:

Mr. J. D., a plate-layer from Annan, was put to sleep by Mr. Lewis in my presence and in that of several gentlemen. I asked him to find and describe my house, which he did most accurately, although he had only that day come to Edinburgh and did not know me. In particular, after describing the street-door and steps, the lobby, the staircase, and the drawing-rooms, he said he saw a lady sitting in a particular chair, reading a new book. On returning home I found that Mrs. G. had at that time been sitting in the chair alluded to, which she hardly ever does, reading a new book, which had been sent to her just before, but of which I knew nothing. Besides, I found that J. D. did not, in describing the house, read my thoughts at all, but dwelt on many things, strange to him, which I never thought of, and omitted others which I did think of and wished him to notice.

The next is interesting:

Sir T. Willshire took home with him a nest of boxes belonging to Major Buckley, and placed in the inner box a slip of paper, on which he had written a word. Some days later he brought back the boxes, sealed up in paper, and asked one of Major Buckley's clairvoyantes to read the word. Major B. made passes over the boxes, when she said she saw the word "Concert." Sir T. Willshire declared that she was right as to the first and last letters, but that the word was different. She persisted, when he told her that the word was "Correct." But on opening the boxes, the word proved to be "Concert." This case is very remarkable; for, had the clairvoyante read the word by thought-

reading, she would have read it according to the belief of Sir T. Willshire, who had either intended to write "correct," or in the interval, forgot that he had written "concert," but certainly believed the former to be the word.

But this is not so remarkable as is the following:

Sir Walter C. Trevelyan, Bart., having received a letter from a lady in London, in which the loss of a gold watch, supposed to have been stolen, was mentioned, sent the letter to Dr. H., to see whether E. could trace the watch. She very soon saw the lady, and described her accurately. She also described minutely the house and furniture, and said she saw the *marks* of the watch (the phrase she employs for the traces left by persons or things, probably luminous to her) on a certain table. It had, she said, a gold dial-plate, gold figures, and a gold chain with square links; in the letter it was simply called a gold watch, without any description. She said it had been taken by a young woman, whom she described, not an habitual thief, who felt alarmed at what she had done, but still thought her mistress would not suspect her. She added, that she would be able to point out the writing of the thief. On this occasion, as is almost always the case with E., she spoke *to* the person seen, as if conversing with her, and was very angry with her. Sir W. Trevelyan sent this information, and requested the writing of all the servants in the house to be sent. In answer, the lady stated that E.'s description exactly applied to one of her two maids, but that her suspicions rested on the other. She also sent several pieces of writing, including that of both maids. E. instantly selected that of the girl she had described, became very angry, and said, "You are thinking of pretending to find the watch, and restoring it, but you took it, you know you did." Before Sir W. Trevelyan's letter, containing this information, had reached the lady, he received another letter, in which he was informed that the girl indicated as the thief by E. had brought back the watch, saying she had found it. In this case, Sir W. Trevelyan was at a great distance from Bolton, and even had he been present, he knew nothing of the house, the watch, or the persons concerned, except the lady, so that, even had he been in Bolton and beside the clairvoyante, thought-reading was out of the question.

Here is another from the same eminent reporter:

At the house of Dr. Schmitz, Rector of the High School here, I saw a little boy, about nine years of age, put into the mesmeric sleep by a young man of seventeen. As the boy was said to be clairvoyant, I requested him, through his mesmerist, whom alone he heard, to visit, mentally, my house, which was nearly a mile off, and perfectly unknown to him. He said he would, and soon,

when asked, began to describe the back drawing-room, in which he saw a sideboard with wine glasses, and on the sideboard a singular apparatus, which he described. In fact, this room, although I had not told him so, is used as a dining-room and has a sideboard, on which stood at that moment glasses and an apparatus for preparing soda-water, which I had brought from Germany and which was then quite new in Edinburgh. I then requested him, after he had mentioned some other details, to look at the front room, in which he described two small portraits, most of the furniture, mirrors, ornamental glasses, and the position of the pianoforte, which is very unusual. Being asked whom he saw in the room, he replied, only a lady, whose dress he described, and a boy. This I ascertained to be correct at that time. As it was just possible that this might have been done by thought-reading, although I could detect no trace of any sympathy with me, I then requested Dr. Schmitz to go into another room, and there to do whatever he pleased, while we should try whether the boy could see what he did. Dr. S. took with him his son, and when the sleeper was asked to look into other room, he began to laugh and said that Theodore (Dr. S.'s son) was a funny boy and was gesticulating in a particular way with his arms, while Dr. S. stood looking on. He then said that Theodore had left the room and after a while that he had returned; then that Theodore was jumping about; and being asked about Dr. S., declined more than once to say, not liking to tell, as he said, but at last told us that he also was jumping about. Lastly, he said Dr. S. was beating his son, not with a stick, although he saw a stick in the room, but with a roll of paper. All this did not occupy more than seven or eight minutes, and when Dr. S. returned, I at once gave him the above account of his proceedings, which he, much astonished, declared to be correct in every particular.

VIII.—Phrenological Phenomena.

By far the most interesting of the phenomena of Somnambulism are those which certainly *seem* to be conclusive evidence that the brain is the organ of the mind, and cogent evidence that the various mental faculties have their separate seats in various parts of the brain.

The facts are very remarkable, whatever their interpretation. For trial of the experiment some *knowledge* of the scheme of Gall and Combe is required on the part of the Psychologist, although *belief* in it is not necessary. Indeed, the test will be more certainly applied if you are

sceptical, for there will be then an assurance for yourself that the action of the Somnambule is not a reflex of your faith.

When *en rapport* with a Somnambule, you can play upon his mind as upon an organ, as certainly and rapidly, and with almost as many answering tones. As surely as, when you strike the key you hear the responsive note, so surely and promptly does the mental faculty respond to your touch. Place your finger on the asserted locality of mirth, the patient smiles; of veneration, he lifts his hands or kneels, prays aloud or *looks* a prayer; of combativeness, he strikes you; of benevolence, he throws his arms about your neck, or seizes your hands and kisses them; of music, he sings; of language, you evoke a flood of eloquence; of imagination, pictures pass before his mind's eye; of self-esteem, he stands erect and struts. And so with the rest.

Still more interesting and instructive it is to observe the combined action of two or more faculties. In this experiment you see the mind working, at your command, precisely as in waking life it works under the control of its own Will. These combinations may, of course, be varied infinitely at your pleasure. Here I can notice but a few of them. Touch the alleged seats of *Music* and *Mirth*, the Somnambule sings a comic song. In the middle of a verse, remove your finger from *Mirth* and place it upon *Veneration*. Instantly the whole aspect changes; he drops the comic song and sings a hymn. Restore the finger to *Mirth*, the hymn ceases and the comic song is resumed. The most remarkable feature of this phenomenon is that hymn and song are renewed at the identical notes at which they were broken off. Return to *Veneration*, the hymn is renewed, and thus he may be made to oscillate between comic song and hymn, so long as you continue to strike, as it were, the alternate chords of the patient's mind.

Nor this only. Allow a long interval to elapse, during which you try experiments with other faculties. Returning then to the song or the hymn, the same

result appears; either is resumed where last it was broken off, even if in the middle of a bar. The same continuity of mental action on the recurrence of the same conditions is presented in other cases. If many days have elapsed, during which the patient has performed all the work of daily life with entire unconsciousness of the events of his hypnotic life, when again restored to the hypnotic state he resumes the action in which he was engaged when wakened. When the dream (for such it is) is revived, it is continued at the precise point at which it had ceased before.

This curious mental phenomenon surely demands the earnest investigation of Physiology and Psychology. What is its explanation? What does it suggest? What is the mental condition that thus presents to us the phenomenon of *a double life?* Is the entity that in hypnotism works without the aid of the senses the same entity that works in waking life through the senses—and through them alone?

The *natural language* of the mental faculties, as expressed by Somnambules, is singularly beautiful. No actor has surpassed and few have equalled them in this. It matters not who is the patient, young or old, male or female, gentleman or clown, educated or ignorant, the acting is excellent with all and has striking features of resemblance, proving that nature has made us more alike than we are willing to believe, and that when the Mind works according to its own untrammelled impulses, the *expression* of its several faculties differs little in *kind*, though much in *degree*. I have seen boys taken from the street, under the influence of excited veneration, express in attitude and feature emotions which GARRICK might have envied or RAPHAEL been proud to pourtray. Excite together veneration and imagination suggesting a religious *picture* to the Somnambule. No words could describe and no art depict the rapt expression of awe and devotion with which the entranced patient beholds, as he believes in his dream, the heaven opened.

Then touch "language" also. He breaks into an invocation of marvellous beauty, or sinks upon his knees, folds his arms, bows his head and utters an eloquent prayer. Many times I have seen boys and girls *called out of the street* and hypnotised, and then the silent touch sufficed to evoke emotions the expressions of which amounted to positive sublimity.

The passions and sentiments may be as readily and as perfectly excited by the same means. Love and hate, destructiveness and benevolence, mirth and melancholy, hope and despair, firmness and fear, may be summoned to action by the lightest touch of the finger and allayed as speedily by its removal or by the counteraction of another faculty.

The practitioners of this art, reluctant to abandon their pretension to a power enabling them thus to control the action of another mind, insist upon the passage from themselves to the patient of some mystical "fluid," assumed, without the slightest evidence, to be "magnetic," and by which, they say, their control is established. They believe that every movement of the mind of the Somnambule is directed by their Wills; whereas, in fact, they merely suggest *the subject* of the dream which the mind of the patient invents and acts.

Among the more thoughtful investigators of these phenomena the question has been raised, if in this experiment the mental faculties are stimulated to action by excitement of the brain produced by the touch of the finger, or if the result is not rather due to the influence of the active Will of the operator controlling and directing the passive mind of the patient, as in others of the phenomena of Somnambulism. This conclusion would have been accepted by myself but for some seemingly contradictory facts. The same results were produced by the touch of persons wholly ignorant of the asserted localities of the various faculties. If the supposed site of some other faculty was touched in error, the expression was that of the faculty whose site was touched and not that of the faculty intended to be excited.

A case within my own experience bears upon this important point.

A youth was brought to me for examination. He was singularly sensitive to this influence. I was trying various experiments with a view to learn what are the mental faculties that combine for the production of various mental characteristics. Desiring and intending to touch the alleged locality of "Hope," I turned to speak to a friend, and accidentally my finger lighted upon the alleged seat of "combativeness." Instantly the patient fell upon me with extreme fury, beating me with his fists. With much difficulty I was enabled to touch the asserted seat of "Benevolence." As instantly as my finger rested upon him there, his combative mood ceased and was exchanged for signs of the most fervent affection.

Here my Will had desired to evoke one emotion, but accidentally and unconsciously my hand had touched the supposed locality of another emotion. The touch and not the Will prevailed. This would appear, at the first view of it, to negative the theory that the patient does but echo the Will of the operator. Nor is it a solitary instance. I have witnessed many like it. Nevertheless it admits of another solution suggested in the next chapter, to which the reader is referred.

The following case is recorded by Dr. GREGORY:

A. F., a young man, was put to sleep by me in a few minutes. In this state, every part of the head that was tried yielded striking manifestations of the corresponding phrenological faculty. I had no reason to think that this young man knew the position of the organs, nor anything about phrenology; but even if he had some general notions on the subject, the effects produced appeared so rapidly that it was impossible for him to have simulated them, even had he been disposed to do so, which I am sure was not the case. Benevolence, Destructiveness, Combativeness, Secretiveness, Acquisitiveness, Self-Esteem, Love of Approbation, Veneration, Cautiousness, Adhesiveness, Philoprogenitiveness, Tune, &c., were all tried, first in rapid succession, and all yielded strong manifestations, although very often they were quite different from what I had expected, or were distinct when I had no clear idea of how they were to be manifested. Benevolence being touched, he instantly began to give away all his money to me, taking me for an object of charity, and when I continued the contact, took off his coat to give me. This is the almost universal manifestation of Benevolence,

obviously because, when the feeling is excited, its most natural result is to give to those in want. Cautiousness produced the most vivid picture of terror I ever saw; he said there was a fearful abyss before him, and felt as if he was to fall into it. Tune instantly caused him to sing; Imitation, to imitate not only every sound he heard, but also, with closed eyes, the gestures made by those near him. It is impossible here to give all the details; suffice it to say, that although it all looked like first-rate acting, a close study of his countenance showed the most entire truthfulness. Besides, as I moved my hand from one organ to another, so rapidly as to confuse any one not very much in the habit of guessing what organ is touched, the effects never failed to follow. To test him further, I tried touching two organs at once, and invariably obtained combined manifestations. Thus when Benevolence and Acquisitiveness were touched, he put his hands into his pockets as before, but instead of giving me the contents, he treated me to a lecture on the heinousness of begging, and declared that he thought giving money the worst kind of charity. Veneration alone caused him to pray humbly and devoutly; Veneration and Self-Esteem combined gave rise to a prayer, in a standing position, in which he returned thanks for having been made so superior to other men in religious knowledge. This combination was accidental, Self-Esteem having been first much excited, with very amusing results, and Veneration having been touched before the excitement of Self-Esteem had subsided, with the desire of reproducing the former humble devotion. Many similar trials yielded analogous results. I found also that when, intending to touch one part, my hand accidentally glided to another, the manifestation was always that of the part really touched, not of that which I intended to touch. In the region of the supposed organ of Alimentiveness, I found, within a small space, three different points; the touching of one of which produced excessive desire to eat; of another, the desire to drink; of the third, sensations of smell. To obtain these results, which could not be known to the subjects, since they were not then published, nor generally known to phrenologists, although I had heard of them, it was necessary only to move the point of the finger one-fourth or one-eighth of an inch, the three points certainly lying in less than the surface of a shilling. In all these trials, it did not signify what I wished, nor what I said; only such organs were excited as I touched. I had complete evidence that the subject did not sympathise with me or with my thoughts, but that my touch excited the faculty corresponding to the part touched.

This case occurred to me in 1843, and at that time I had three other similar cases, in persons absolutely ignorant of phrenology; nay one of them, a girl of ten or eleven, of the lowest class, ignorant of everything, and very nearly imbecile. In some of these cases, certain organs could not be excited, while others were

easily brought into action. In all of these, I assured myself that neither sympathy nor suggestion played a part.

But another case from the same authority appears to support the suggestion I have adventured, that it is the Will of the operator, and not the touch of the finger upon the skull, that evokes the mental expression:

This case presented some more peculiarities. I could excite laughter by touching the organ of Gaiety or Mirthfulness. But I could also cause laughter by touching the angles of the mouth, when it often became very violent. In either case, I had only to touch the middle of the chin, in order instantly to change the laugh into the profoundest gravity. This fact was pointed out to me by Mr. Bruce, who had studied the case four years before. He also told me, that touching a certain part of the leg caused the young man to dance. I tried this, but probably did not touch the right spot, or touched it too strongly, for the result was a sudden and most violent kick, fortunately received by a table, and accompanied by a very angry pantomime. This I saw several times. When I placed my finger, for less than half a second, on his left breast, he instantly sank down, as if fainting; but observing this, I placed my hand on Self-Esteem and Firmness, when he instantly rose into a posture of defiance. I am convinced that I could have caused him to faint entirely in a few seconds; nay I think, in that state, death might be produced by keeping the hand over the heart.

IX.—Double Consciousness.

Another strange but well-proved phenomenon. Somnambules have *two lives*, each having its own distinct memory. Awake, they have no recollection of anything that occurred in the hypnotic condition. It is a total blank to them. But when that condition is again induced, the memory revives of all that occurred, not in the last only, but in all previous similar conditions, precisely as we have of the events of our own lives. Nor this only. There are two distinct streams of memories. In the hypnotic condition there is no memory of any incident of their waking lives. In their waking lives there is no memory of any incident of their hypnotic lives. Each life is a blank to the other.

Although there is no conscious memory by the patient

awake of his *actions* in the hypnotic condition, some of the mental *impressions* remain, but the origin of them is lost. One case of many will suffice to illustrate this.

I was acquainted with two ladies in Cornwall who were highly susceptible to the hypnotic condition. If in the trance state either was directed and promised to do something at some named time when awake, it was invariably done. "Go," I said, "to-morrow at one o'clock precisely, take a book (naming it) from the library, open it at the page (named), bring it to my room and place it on the table with the leaf turned down." As surely as the hour came, she, then being awake, appeared with the right volume rightly marked as I had directed. Asked why she did so, she could say only that she felt an impulse to do it, but whence coming she had no knowledge.

It is one only of many cases in which I made trial of this interesting phenomenon, in hope to learn something of its physiology. I have witnessed the like with other patients. The impression of the promise is upon the mind, but there is no memory how it came there. Who shall say how many of the unaccountable mental impulses of our waking lives may not have been in like manner received unconsciously into the storehouse of the memory and afterwards reproduced by some unsuspected suggestion which, because we are ignorant of its source, we are not unwilling to accept as an inspiration.

X.—Mental Travelling.

Another phase of Somnambulism is that which has been termed "mental travelling." The patient describes distant places he has never seen. If this faculty had been limited to descriptions of towns or other localities which might have been the subjects of painting or photography, the accuracy of these pictures might be reasonably attributed to some previous acquaintance with them. But it extends to dwelling-houses *and their contents* in distant countries, which the Somnambule could not possibly have visited. This also has been the subject of repeated experiment, so as to leave no doubt of the fact in the judgments of all who have

investigated them. One instance, within my personal experience, will suffice to give the reader a clear conception of the character of this very curious psychological phenomenon:

The Somnambule was a little girl, aged only ten years. She was invited to go (mentally) with me to Somersetshire. She described accurately my father's house there—the verandah and the glass doors opening to the garden. Asked if she could see anything in the room? "Oh yes!" she said, "such a funny chair, it rolls about." (It was an American rocking-chair). "Anything more?"—"Yes, pictures." "Tell me what they are about."—"One is a house pulled to pieces." (There was a drawing on the wall of the ruins of an abbey). "Any more?"—"Yes; the sky is on fire; horses are jumping about." (It was a large painting of a storm, and horses struck by lightning). "Anything more?"—"A river runs by the side of the house." (Right). I should state that the child had never been out of London. A friend who was present accidently then asked to be allowed to question her. He was placed *en rapport* with her simply by my removing my hand and giving her hand to him. Re-establishment of this relationship was essential to the production of the phenomena. As I had never seen my friend's house, I cannot vouch for her accuracy with him as with myself; but I had his assurance that it was equally correct. I should state that neither of us gave the child the slightest intimation by word or look; indeed we did nothing but put questions. My friend's house was at Dover. She described some of the way down—such as the tunnel and the cliffs. "Now," she said, "I see a row of houses and such a lot of steps to get to them." "Go with me up the steps of the third house."—"Yes." "Now we go in; what do you see there?"—"Something like a monkey and some horns." (Right). "Now go into the room on the left."—"Yes, such a lot of books about; there is a horrid thing on the chimney-piece." (It was a skull). "There's a picture of a gentleman's head over it." (It was a portrait). "Now we will go upstairs."—"What a beautiful room, and oh! what a beautiful lady." "What is she doing?"—"Oh, no; it's a picture I mean, with such a beautiful dress, and she has a hat on; how funny!" (It was the full-length portrait of a lady in a riding habit). She described much besides which my friend stated to be correct. Then she added, "There's a young lady with long yellow curls looking out of window." He whispered to me, "She is wrong there. I have a niece with such hair, but she is from home. She reads the picture in my mind." My friend returned to Dover the next day and the following post brought me a letter stating that he was surprised to find that his niece had returned unexpectedly, and was in the draw-

ing-room as described, but she believes she was not at the window.

The same child had also the power of indicating diseased parts of the bodies of persons *en rapport* with her. In this manner I repeatedly heard her describe in childish phrase, but accurately in substance, phthisis, diseased liver, internal tumors, &c., in persons whom she saw for the first time.

Some of these descriptions are undoubtedly difficult of explanation by mental communion; nevertheless, I am inclined to the conclusion that this is the true solution. It was essential that she should be *en rapport* with the person inquiring. The inquirer's mind was directed to the subject by the act of inquiry. This called up in himself a series of mental pictures which were (in the manner stated elsewhere) reflected from his mind and depicted upon hers. Hence the sometimes very correct and sometimes only partially correct descriptions. The same explanation applies to the diseases indicated by her. The persons *en rapport* with her knew their own diseases, had formed more or less accurate mental pictures of the diseased organs. These pictures were reflected on her mind. She did not actually see the distant places, nor peep into the bodies of the questioners. She described merely pictures that were upon her mind, the source of which she did not know, but which by the laws of our mental mechanism are accepted, as in dream, as being the products of external objective impressions brought by the senses. Doubtless when the drawing-room was depicted in my friend's mind, as it must have been by simple suggestion, instantly upon his asking her to go into it with him, it was in his own mind associated with the form of the niece whom he had habitually seen there. Hence her sympathetic pictures of the room and of which the niece was a part. Such an explanation of the entire series of these phenomena is far more probable than the other solutions offered—that the eyes of the child could see from London to Dover, or her soul quit her body, travel thither, and return between the question and the answer.

This is but one of many like cases. The first impression of the experimentalist is, of course, that the Somnambule actually perceives the objects he so describes, although so far beyond the range of vision. But the descriptions given suffice for question of this assumption. They are at once too accurate to be guesses and too imperfect to be pictures in words of things actually beheld. Some are very vivid, others indistinct in form and colour. The solution advanced by certain Scientists, who cannot dispute the fact, is that they are happy guesses. But this is too idle to be seriously answered. Let any reader try the experiment by setting down his own *guesses* as to the arrangement and furniture of a house which he has never seen. He will find himself utterly at fault. Even if furniture could be "guessed," would he rightly guess the subjects of pictures? Yet were these among the most minute of the descriptions given by the Somnambules in the cases cited, as in those reported.

The solution that suggested itself to me, and which reflection and experience have strengthened, is that this is another of the phases of that faculty, familiarly but erroneously called "thought-reading," which explains so much of the phenomena of Psychology and Mental Physiology. My suggestion (for it is not proved) is that the mind of the Somnambule is impressed by the mind of the operator and does not perceive the object itself, but only the idea of the object as it exists in the mind of the person *en rapport* with him. This would account alike for the accuracies and imperfections of the description. The recollections of all of us are more or less imperfect. Some memories are far more vivid than others. Endeavour to describe in speech, or, better still, in writing, a room, with its contents, even if familiar to you for years. You will be surprised to find how imperfect that recollection is. You have mistaken a distinct memory of certain striking objects for a clear memory of the whole. The Somnambule has in his mind the same picture as is in your mind, its shadows

and its lights—its perfect and its imperfect memories. Hence the perfection of some descriptions, the shadowy and uncertain character of others. This accounts also for the accuracy with which pictures are usually described, for these, being frequent and unchanging objects of inspection, the mental impressions of them are of necessity more distinct than of things that vary in appearance, and change often their location.

To the objection that things are sometimes described which the operator does not remember, the answer is, as shown in the chapter on Memory (Vol. I. p. 366), that we have *memories* of many things we are unable to *recollect* at the moment, as a thousand experiences of life will prove. Inasmuch as in all probability every impression made upon the mind remains there, even although unconsciously impressed,—before it can be affirmed of any perception by the Somnambule that it is *not* a reflection of the operator's mind, we must be assured, by some conclusive evidence, that the thing perceived by him could at no time have been impressed upon the mind that is *en rapport* with his. There is no more common error than to confuse the faculty of memory with the power of recollection. When we suppose a person to have a defective *memory*, it is usually, if not always, that he has defective powers of *recollection*.

XI.—Action at a Distance.

They who have much practised the artificial production of Somnambulism, attributing all to some mysterious personal power, assert that they can, by the exercise of their own *wills*, influence the actions of a patient far away. Their assertion is that at any moment, by fixing their thoughts upon the patient and *willing*, they can prompt him to some desired action, contending that thus they move his mind.

I can only refer to my own experience. I have tried and witnessed the trial of many experiments with a view to ascertain the existence of this very extraordinary power. In no one instance has clear and satisfactory proof of it

been given to me. Even under the far more favourable condition than separation by a wall, I have not found the expected result. Where the patient had an inkling of what was going to be done, the desired effect followed. But when all possible suspicion of what was designed was precluded—as where the patient was ignorant of the accustomed operator being in the house—the *Will* was exerted in vain. Nothing came of it. In every experiment that appeared to be successful, careful examination could trace something that might have given to the patient a *suggestion* sufficient to set up that abnormal action of the nerve system which issues in Somnambulism.

XII.—Mental Exaltation.

The general exaltation of the mental faculties in the hypnotic condition is one of the most interesting of the phenomena of Somnambulism. The paralysis of the senses,—the entire isolation of the mind from its normal action upon the body,—the temporary release, as it were, of the Conscious Self from the burden of the material mechanism,—appears to relieve the mental powers from some restraint, enabling them to work with vastly greater capacity, lucidity and rapidity. Somnambules are always much more *intelligent* in their hypnotic than in their waking state. Indeed, the whole mind appears to have undergone a complete revolution. The most stupid when awake are lively and even clever when hypnotised. The intelligent become positively brilliant. Whatsoever be the bent of their genius, it takes the most exalted forms. It is the like with the passions and the sentiments. They are largely multiplied. Knowledge is exhibited which they were not supposed to possess, but which had been at some past time received unconsciously by some sense and so impressed upon the brain and conveyed to and retained by the memory. Whatever the true character of the patient, it is unreservedly displayed. Fine thoughts expressed in beautiful language flow from lips that in waking life never uttered anything

but the commonest platitudes in the plainest dress. The merest lout is lively and even clever. The shy are forward to speak and the timid fearless to do. No theatre in the world could present such exquisite acting as is shown by a Somnambule playing any part suggested to him. If only the dullest patient could do when awake what he does in this trance, *that is not sleep*, he would be the greatest actor the world has ever seen. But it is an evanescent genius, exhibited only when the mind is working without the impediments put upon it by the material mechanism of the senses. The connection restored, the bonds of the body resumed, the mind returns to its normal stupidity, without the slightest memory of its doings during the short season of its exaltation.

For so it is. As already stated, the Somnambule lives two lives. He has two wholly distinct streams of consciousness. In his normal and waking state he has no memory whatever of anything that has occurred in his hypnotic state, and *vice versa*. But when he returns to the hypnotic state, the memory returns of all that has passed in his previous hypnotic conditions, and he has no memory of the events of his normal condition. He becomes, in fact, a changed being, with very few traces indeed of his waking self.

The process of *awakening* is noteworthy, for it throws some light on the condition itself. In compliance with the old practice, based upon the notion of a magnetic influence exercised by the operator, the usual course is to make what are called "reverse" passes—that is, instead of moving the hand from the head downwards, it is moved rapidly in the contrary direction. Sometimes the operator blows in the patient's face. In very obstinate cases of profound hypnotic sleep all these, with the addition of a rude shaking, often fail to produce the desired effect. But whatever the movements of the hand or the vigour of the breath, the action is always accompanied by a strong expression of the operator's *Will* that the patient should awake. This

appears to be the true wakener. As in the hypnotic state the mind of the patient is controlled and directed by the *Will* of the operator, so it is *his* Will that commands the mind of the patient to resume possession, as it were, of its own Will and thus to revive the action of the senses. Then the body is practically restored to the Conscious Self by renewal of the connection between that Self and its material mechanism, to the partial disseverance and dislocation of which all the phenomena are due. The reversed passes, the stream of breath and the other customary devices, are *only indications by the operator to the patient that he Wills him to awake.* He commands the action of the mind in the trance, when the Will of the patient is paralysed, and that command is equally potent to make the mind throw off the spell and resume its self-control.

Dr. GREGORY, in his admirable treatise, thus tersely states the phenomena of Somnambulism which he deems to be established. My own lesser experience confirms, to my own judgment at least the greater portion of them. From some it will have been seen that I dissent.

I think we may regard it as established: first, that one individual may exercise a certain influence on another, even at a distance; secondly, that one individual may acquire a control over the motions, sensations, memory, emotions, and volition of another, both by suggestion, in the conscious, impressible state, and in the mesmeric sleep, with or without suggestion; thirdly, that the mesmeric sleep is a very peculiar state, with a distinct and separate consciousness; fourthly, that in this state the subject often possesses a new power of perception, the nature of which is unknown, but by means of which he can see objects or persons, near or distant, without the use of the external organs of vision; fifthly, that he very often possesses a very high degree of sympathy with others, so as to be able to read their thoughts; sixthly, that by these powers of clairvoyance and sympathy, he can sometimes perceive and describe, not only present, but past, and even future events; seventhly, that he can often perceive and describe the bodily state of himself or others; eighthly, that he may fall into trance and extasis, the period of which he often predicts accurately; ninthly, that every one of these phenomena has occurred, and frequently occurs, spontaneously, which I hold to be the fundamental fact of the whole inquiry; Somnambulism,

Clairvoyance, Sympathy, Trance, Extasis, Insensibility to pain, and Prevision, having often been recorded as natural occurrences. Tenthly, that not only the human body, but inanimate objects, such as magnets, crystals, metals, &c., &c., exert on sensitive persons an influence, identical, so far as it is known, with that which produces mesmerism; that such an influence really exists, because it may act without a shadow of suggestion, and may be transferred to water and other bodies; and lastly, that it is only by studying the characters of this influence, as we should those of any other, such as Electricity or Light, that we can hope to throw light on these obscure subjects. Let us in the meantime observe and accumulate facts; and whether we succeed or not in tracing these to their true causes, the facts, if well observed and faithfully recorded, will remain, and, in a more advanced state of science, will lead to a true and comprehensive theory.

XIII.—Medical Uses.

Great *healing power* is claimed for Hypnotism, and there is no doubt of its efficacy in nervous disorders and the maladies that grow out of defective vital force or irregular nerve action. Before the discovery and use of anæsthetics, capital operations were successfully performed under the insensibility produced by hypnotism. The introduction of chloroform superseded the earlier practice, by reason of the ease of its administration and the great certainty of its action. All succumb readily to chloroform; only one in three to the influence of hypnotism. But for curative purposes it remains without a rival and would be more employed but for the prejudices surrounding it through professional jealousies and the systematic hostility of scientists to the *name* by which it was first known. Whole volumes have recorded the cures wrought by this instrument. Dr. Esdaile published a book devoted to a record of the good work done by it in the Hospitals of India. Miss Martineau, in her autobiography, repeats her emphatic assertion that, after the doctors had pronounced her case hopeless, hypnotism cured her of a disease declared to be incurable by medicine. That it will often remove neuralgia in its various painful shapes is familiar to all who have made trial of it. It may

be readily put to the proof by any who doubt. If it does not cure, it is at least harmless; when it fails to cure it rarely fails to relieve pain.

Nor is the *rationale* of its operation so obscure and difficult as some have supposed. It admits of a very reasonable and probable explanation.

Hitherto, the popular theory has been based upon the assumption of a supposed force called "Animal Magnetism." According to this theory, a fluid, imperceptible by any sense, but by which the processes of Life are performed, is possessed by all human beings. Some persons have more, some less, of this fluid. They who possess it *plus* are capable to become the operators in the production of magnetic phenomena. They who have it *minus* are fitted to be patients. The operator communicates to his subject, by means of the "passes," a portion of his superfluous magnetism, which flows from the points of his fingers, thus restoring the patient to the magnetic equilibrium necessary to health.

What says Science to this theory?

The very existence of such a fluid is unproved. There is absolutely *no* evidence of its being. The most delicate instruments have failed to show its presence. If any such force exist, certainly it is not magnetic, nor in any way connected with magnetism, for the most careful tests do not reveal the slightest traces of it. No one fact confirms the *mere conjecture* that anything is transmitted from the operator to the patient. True, the hypnotic condition was first induced when magnets chanced to be used and this led to the hasty conclusion that magnetism was the agent. But the experiment was afterwards tried with tractors of wood, painted to resemble magnets, and precisely the same results followed. Then the hand was tried, without the magnet, and the operation was as perfect as before. Obviously, therefore, the agent was *not* magnetism. But the belief that it was magnetism, of some kind or in some form, could not be shaken off

and so the name of "Animal Magnetism" was given to it.

Further experiments have since ascertained that the hand of the operator is not necessary to the production of the hypnotic condition. This may be induced as perfectly by the patient staring at a coin held in his own hand as by looking at the tips of the operator's fingers. The conclusion, therefore, is that nothing magnetic or otherwise is *communicated* from one to the other, and that, in fact, hypnotism is a *self-induced* condition.

But although no healing power is possessed by the operator, and no positive fluid or force is transmitted from him to the patient, there is no doubt that the cure often, and almost always the relief, of a large class of maladies is accomplished by means of the manipulation. How?

As yet, in lack of positive proof, the conclusion is necessarily little more than conjecture; but it is a rational conjecture and a probable conclusion, and in strict accordance with the physiology of the nerve system and the entire Mechanism of Man.

It may be thus expressed:

Disease, in the vast majority of cases (*not* caused by the introduction of a poison, such as are those called infectious and contagious), is the consequence of a deficiency in quantity, or irregularity in the distribution, of the vital (or nerve) force that is transmitted from the nerve centres. The immediate result of insufficient vital power is that the functions of the organism are imperfectly performed in such parts of the structure as are so defectively supplied. The nutrient particles are not eliminated from the food; or they are not taken up by the absorbents; or they are not properly amalgamated with the blood; or they are not abstracted from the blood by the parts of the organism requiring repair; or they are not perfectly converted into flesh and bone; or the used-up particles are not removed in due course, but remain to impede more or less the healthy working of the machine. The vital (or nerve) force is that by which

all the organic changes are wrought, and the nerve system is the mechanism by which that force is conveyed to every part of the structure. This sustaining and healing influence may fail at its source, and then the whole organism first flags and then dies. Or its flow may be impeded in parts only of the mechanism, and then those parts alone are affected. The obvious remedy for diseases so caused (and they form the vast majority of the ailments we endure) is obviously to increase the amount of nerve (or vital) force at the producing centres, or to promote its more equal distribution by removing the obstacles that impede its flow to the diseased parts; as the case may be.

This, briefly stated, being the immediate source of many maladies, how does hypnotism accomplish its undoubted cures?

To answer this question we must ask another. Can the nerve force be directed by any voluntary effort? There is cogent evidence that it may. It is an established fact that, by fixing the *attention* upon parts of the structure, positive pains may be produced in those parts. Neuralgia is supposed to be mainly due to a process of this nature. The stigmata of ecstatics, whose existence is too well attested to be denied, are doubtless due to the same cause. We never send a command to a limb to move but we direct the nerve force thither to do the work. The weariness of walking is not weariness of the muscle, but of the mind that moves the muscles, as is shown by this, that if a sudden excitement stirs the lagging nerve centre to send forth a fresh stream of the nerve force, the weariness passes away on the instant. This could not be if the weariness were in the muscles themselves.

Such being the action of the nerve force, may it not well be that the hypnotic process—which is performed by making what are called "passes;" that is, by passing the hand slowly and equably from the head down the back, from the neck to the arms, and so forth, especially over the affected part—operates by directing the *attention* of

the patient to the parts of the body over which the hand is drawn, this *attention* being accompanied, as a necessary consequence, by a flow of the nerve force to that part, thus restoring the equilibrium of vitality and sending to the diseased part the vital force of which it is deficient. I am conscious that such a simple explanation is not satisfactory to those who assume the existence of a fluid, call it animal magnetism or what they please, which they believe to be transferred to the patient by the benevolence of the operator out of his own abundance. But I may be excused for holding that we should not invoke an unproved power, natural or supernatural, to account for proved facts, until we have exhausted all ways of accounting for them consistently with what are known of the laws of nature. It is equally unreasonable and unscientific to refuse to accept a fact because we cannot at once discover a natural cause for it. Wisdom will shun both errors. Cure by hypnotism is *a fact*. The fact admits of an explanation consistent with recognised science. I venture to submit that explanation to the reader, not as being positively proved, but as being very probable.

CHAPTER VI.

THE PHYSIOLOGY OF SOMNAMBULISM.

SUCH being the phenomena presented by Somnambulism, whether naturally produced or induced artificially, the next question is, with what *physiological* changes are they *probably* attended? The reader should clearly understand that but little progress has been made towards a solution of this problem, because as yet scientific methods of experiment have been insufficiently directed to it.

That Somnambulism is not a purely mental or psychic condition appears from some facts noted by Physicians.

The eyes, as stated, are turned upwards and inwards, in a position impossible by any voluntary effort. Where this is found, therefore, it is certain that the patient is not shamming. The eyeballs and eyelids exhibit constant and rapid quivering, difficult to imitate at all, but which could not possibly be continued for five minutes. The Somnambule exhibits both of these physiological phenomena so long as the affection lasts, even when continued for many hours.

A similar position of the eyeball, but without the quivering, is said to be found in coma. Hence it may be reasonably inferred that the physical condition of Somnambulism is allied to the comatose condition.

We know certainly that *all the senses are paralysed;* they have ceased to convey to the mind the impressions made upon the body. The communication between the Conscious Self and the body is severed, but we are as yet ignorant if it be that the nerves have ceased to

carry, or the brain to receive or to impart, the messages to be transmitted. Whatever the cause, it is certain that, in some manner not yet ascertained, the recipient power of the central ganglion of the brain (the organ upon which the sense-nerves converge and through which their impressions are conveyed to the Conscious Self), is paralysed or its power to communicate with the Conscious Self is for a time suspended. *Some* physiological change doubtless takes place *there*, but we know not its nature. The *Will* is wholly suspended—that is to say, brain and body have ceased to obey the commands of the Will. But this is not a special feature of Somnambulism. As we have seen, a like state of the mechanism attends ordinary sleep.

The Physiological condition of Somnambulism is marked by a temporary cessation of the control of the brain over the body and the consequent severance of the Intelligence from the mechanism of the body.

But this is not all. In the first stage of Somnambulism, when artificially induced and we are enabled to observe minutely the process of passing into the hypnotic condition, the brain itself appears to be more or less paralysed, the intelligent Will, that moves and directs the brain in the normal state, having ceased to move it. The entire of the mechanism stands still, as a machine does when the motive force is withdrawn. One result of this is the remarkable phenomenon of *catalepsy*. Place the limbs in any position and they remain there, because the paralysed Will has no power to move them. The immovable muscles continue thus fixed for an indefinite time without weariness. Why? Because they are not sustained in that position by an effort of the Will. The weariness or pain of what we term a constrained posture is in the nerve and not in the muscle. This is the simple scientific explanation of the seemingly marvellous experiments in which the limbs of Somnambules are stiffened and kept for hours in positions impossible to be sustained for a minute by any voluntary effort. The extension of the arm,

a heavy weight held in the hand, is no more painful nor wearisome to the Somnambule than is a like posture to a lay figure. The *sense* of pain and weariness is in the brain, not in the body. The brain of the Somnambule is severed from his senses. He cannot direct the motions of his limbs. His body is to his mind—his consciousness—as if it were dead. To the experimentalist it is only as the lay figure. Place it in any position and it remains there, because the motive force within is suspended. The normal link between mind and body is practically severed.

CHAPTER VII.

THE PSYCHOLOGY OF SOMNAMBULISM.

I MUST repeat, that the *physical* condition of Somnambulism is a temporary paralysis of a portion of the brain or of the communicating nerves of the Senses, by reason of which the connection between the brain and the body is severed. The action of the Will has ceased. The communication of the Self with the mechanism of the body, normally conducted by means of the brain and the nerve system, is suspended. The senses carry to the Conscious Self no messages from the external world.

Thus we have what is substantially *a mind without a body*, and we are enabled to study deliberately, and even to try experiments upon, this bodyless mind. What a pathway to the investigation of mental physiology and psychology is here opened to the student! The marvel is that it should have been so long neglected by Psychologists. For some inexplicable reason they have preferred, and seem still to prefer, the *meta*physical pursuit of their Science to the study of it, as all other Science is now pursued, by observation of and experiment upon the mechanism in action?

The brain being in this passive state, the Will has ceased to control it and no longer holds command over the body. It is not until the operator exerts *his* Will that the Somnambule shows any signs of revived mental or bodily action.

Then, however, the effect is immediate and remarkable. The active Will of the operator takes the place of the passive Will of the patient. What the operator *wills* him to do the patient does.

But this is not the entire of the process. The senses of the Somnambule being closely sealed and their communication with the mind cut off, he does not feel the sensations brought by his own senses. But he feels the *sensations* communicated by the operator. If he is pricked, the patient winces; what he tastes and smells, the patient tastes and smells.

It is not necessary to this *mental sympathy* that there should be any audible communication. It suffices that the sensation exists in the mind of the person *en rapport* with the Somnambule.

An English word to express what the French call being *en rapport* is much wanted in Psychology. Unable to find one, I am compelled to employ the foreign term. But I am desirous that there should be no misunderstanding of the sense in which it is here used. It is employed to designate a certain relationship between the mind of a Somnambule and the mind of the experimentalist —a species of mental sympathy—by which the waking mind moves the hypnotised mind. The precise nature of that relationship, how it works and by what *physiological* action it is produced, is as yet very imperfectly understood. But the existence of such a relationship is a fact patent to all acquainted even but slightly with the phenomena of Somnambulism. It is supposed by some that it can be established only with the person by whom the hypnotic state is induced. That is a mistake. *Any* person can be placed *en rapport* with the patient by coming within an undefined (but not indefinite) range of his mental mechanism and excluding the counteracting presence of the influences of other minds. Where these prevail, the disturbance of the conflicting forces is painfully manifest. The strongest Will, in such case, ultimately obtains the mastery, but only after evident pain to the patient. The distance from the person of the Somnambule at which another mind can become *en rapport* with his appears to depend, partly upon the power of the Will of the operator, but much more upon the sensitiveness of the patient. It is

vastly extended by practice alike in range and in intensity.

It has been already remarked that the hypnotic condition is, in the judgment of the present writer, *self-induced*. He is aware that in this he differs from others who have had greater experience than himself. But it may be that, the suggestion never having occurred to them, they have not directed their experiments to this inquiry. The production of the condition by some form of personal manifestation is so general that it seems almost to have been taken for granted that the result is due to *personal* influence exercised by the operator. The theory of an imperceptible fluid passing from the one to the other has been accepted as the solution, because of some supposed resemblance to the action of the invisible force of magnetism. But I am satisfied that magnetism is in no way concerned in it. There is no proof of its presence in any shape. All known tests fail to show the slightest traces of it. Doubting much if personal influence was really the *modus operandi*, I tried various experiments and found, as did Dr. BRAID, that the condition may be produced, without an operator at all, by the mere mental action, or rather *in*action, of the patient; that it is, in fact, *a process of fixing the attention until a state of mental inaction or paralysis is produced*. All the operator really does is to cause the *attention* of the patient to be riveted until the whole mind is concentrated on the effort. Insensibility then follows. The process was usually effected by thrusting the fingers against the eyes of the patient, or by requiring him to fix his eyes upon those of the operator, or by "passes." It will be observed that, whatever the means adopted, the end sought is the same—the *fixing of attention*. This view of the process having occurred to me, I found abundant proof of its verity. For experiments in so-called "Electro-biology," the patient is made to rivet his eyes upon a disc in his hand. Four patients out of ten can be hypnotised on first trial by looking steadfastly at a spot upon a wall or a small

pattern on a carpet. Mr. BRAID, whose book on Hypnotism is accepted by the profession and cited by Dr. CARPENTER, invariably hypnotised his patients by a similar process.

The brain and nerve system are thus reduced to a perfectly passive condition, and then it is that the operator is enabled to control both mental and bodily action.

Let us now examine the remarkable results of the relationship so established. The patient being placed *en rapport* with the operator, the one mind becomes entirely subject to the other mind. The passive mind of the Somnambule can be incited to action only by a mind *en rapport* with him. In the first stage of the hypnotic condition, the mind of the patient is wholly passive and moves only as it is moved. In the second stage, when there has been a partial waking from perfect passiveness, the first impulse must be given to the mind of the patient by the mind of the operator. He must suggest *a subject* and the mind of the patient then proceeds to *construct a dream* based upon that suggestion. In brief, it is here as in ordinary sleep and dream. In sleep, the subjects of dream are commonly suggested by the uncertain action of the torpid but not wholly paralysed senses. In Somnambulism, the senses being completely paralysed, the mental action of the operator suffices to suggest *the subject* of the dream, which the mental faculties of the patient weave into a drama—as in the dream of sleep.

But the principal difference between the dream of the Somnambule and the dreams of all of us in our normal condition lies in the action of the *Will*. In ordinary sleep we dream, we Will to act and we *believe* that we act the dream. But we act it in thought only and not in reality because, although we are exercising the Will, and believe that it is doing its waking work and making the body obey its commands, it is, in fact, not doing that work; the body does not obey. In Somnambulism, the patient being partially wakened, the Will revives

and directs and the dream is *acted* accordingly. In few words, the difference may be thus described. In *dream*, we *believe* that we act the dream, but do not act it. In *Somnambulism*, the patient dreams and *acts his dream*. Both are dreaming; but the dream is determined in each by different influences and exhibited in different results.

The interest of these phenomena of Somnambulism, so profoundly important to Psychological and Mental Science, culminates in the question, "how is the mental state of the operator imparted to the patient by a merely mental operation, without communication by means of the senses, through which alone, in the normal condition of the mechanism, mind is enabled to communicate with mind?"

Physiology might answer thus. The brain is constructed of an incalculable number of nerve fibres (some say nerve cells), of inconceivable minuteness. Every square inch contains *many millions* of these fibres or cells. Certain motions of these fibres impart to us (the Conscious Self) certain sensations which we term *ideas* and *emotions*. The processes we call "Memory" and "Recollection" are the tendency of these brain fibres to reproduce any motion once impressed upon them. When any motion is thus set up, from any cause, it is followed by a series of allied motions, in the same order in which they had been grouped on former occasions. This is what we term the *association of ideas*. *Physically*, "association of ideas" is the recurrence of motions of the brain fibres that were associated before, the one setting up the other.

We must turn now to the science of acoustics for the theory of *vibration*. Practically we know that when two chords are strung to the same pitch and one of them is struck its motions are communicated to the atmosphere, and by the atmosphere to the other chord, which forthwith vibrates in unison. The late Sir CHARLES WHEATSTONE had in his drawing-room a harp suspended from the ceiling by one small wire which communicated

with a pianoforte in an upper room. When the pianoforte was played above, the harp below repeated the tune, that single wire sufficing to carry the vibrations of the strings of the piano and impart them to the strings of the harp.

Now for the application of this acoustic phenomenon to *mental sympathy and communion.* (See *ante,* p. 182).

The brain fibres are infinitely more minute and sensitive than are the strings of WHEATSTONE'S harp and doubtless respond to infinitely slighter impressions. Motions of the atmosphere, altogether imperceptible to any sense, are imparted to them and probably also motions of that *ether* which TYNDALL and others now accept as occupying the Universe and in which our molecular atmosphere is merely diffused.

Such being the physical condition attending the process of mental communication, its psychology may be explained thus.

An idea is present to my mind. Physiologically, an idea is a certain *motion* (change of position) in the molecules of one or more of the fibres of my brain. But no motion of any particle of matter can occur without being communicated to other surrounding particles. As the motion of the strings of the piano was communicated to WHEATSTONE'S harp strings, so, by precisely the same process, the motions of the fibres of my brain are communicated by the atmosphere, or by the ether, to the brain fibres of another brain within a certain distance and being in a certain condition of susceptibility. Somnambulism produces this susceptible condition, or some condition favourable to it, doubtless by excluding all the conflicting influences of the throng of impressions upon the senses which in the normal state are continually being brought to the brain by the nerves.

It is probable that, even in the ordinary intercourse of life, this community of brain action is not infrequent. But the mind is then too much occupied by the multitudinous impressions flowing into it on all

sides to take note of the infinitely more delicate impressions communicated by the motions of other brains.

In the case of the Somnambule, all the conditions favour the operation of this process of "mental communion." The passive brain of the patient is in a condition of absolute immobility. The motions of the brain fibres of the communicant have no opposing forces to meet them in the brain of the Somnambule. The consequence is that the passive but highly sensitive brain of the patient is readily subject to the influence of the minutest waves proceeding from the active brain of the operator. One moves as the other moves. Identity of action is identity of conception. The ideas of the operator are echoed by the Somnambule, who, ignorant of their source, assumes, as all of us do in dream, his own mental conceptions to be the impressions of realities from without.

Hence the phenomena of that which is termed "transference of sensation," of obedience to unexpressed commands of the operator, of "communion of thought and mental sympathy," and the phenomena of "electro-biology," as exhibited in the many forms described in a previous chapter.

But the active mind of the experimentalist needs not to exercise continuous control over the passive mind of the patient. In the second stage of Hypnotism (which is identical with the sleep-walking state of natural Somnambulism), the operator needs only to set the mind of the patient in motion, giving to it the first impulse and direction. Then the mind of the patient proceeds, *precisely as in ordinary dream*, to employ its various faculties in constructing a vision upon the suggestion so made. In fact, the Somnambule *is* dreaming as we dream. But his dream differs from our dream in this: The dream of sleep is suggested by some slight impression upon the senses, or some image self-generated; the dreamer *thinks* that he is acting the dream, but does not act it. The dream of the Somnambule is suggested by the motion of another mind setting his mind in motion in a certain direction. Moveover he *acts* the dream.

Nor is this the only difference between the two conditions of Sleep and Somnambulism. *The sleeper usually remembers the dream he does* not *act; the Somnambule has no memory whatever of the dream* he acts.

But, although the partially revived Will of the Somnambule can work without the control of the operator, he continues his command in so far that he can divert and direct the mental action at his pleasure.

Another feature of the trance of Somnambulism is to be noted by the Psychologist. The mental faculties are in a highly *excited* and *exalted* condition. Brain power is really increased. The mind is in the state which has been termed *ecstatic*. This condition has been in all ages the subject of superstition—sometimes for reverence, sometimes for persecution. It has been treated by turns as prophecy, as inspiration, as the utterance of a God or of a demon. How may Science explain it?

The *fact* of such a mental condition is undisputed. It occurs naturally. It may be produced artificially. It is witnessed occasionally in Natural Somnambulism. It is the frequent attendant upon induced Somnambulism. It has been already described and needs not to be repeated here. It is exhibited partially in the state of dream. The process of its production may be suggested thus.

The ecstacy is due to the concentration of nerve (or psychic) force upon the few mental faculties called into action, the greater portion of the mental mechanism being perfectly passive. The excess of stimulus thus provided for few faculties causes in them an excitement and consequent exaltation, greatly in excess of their normal condition, when the entire mental mechanism is moving and the motive force is distributed over the whole brain or among many faculties. Similar results are often seen to attend excitement of the brain by disease—as in brain fever and some forms of insanity. In Hypnotism, the excited faculty is usually in a state of health and therefore capable of the most powerful expression. The active mind of the operator has set in motion parts only of the passive mind of the

patient and upon those parts are concentrated the entire of the force that produces the intelligent action of the brain (the "Psychic Force" as I have ventured to call it). The effect of such concentration of the motive force is seen in very exalted expression of the faculties so excited. There is a temporary transformation of the character of the patient, so far as those excited faculties are concerned, the other mental faculties being passive and paralysed. When the extraordinary stimulus is removed by the process of wakening and restoration of the general action of the brain, thus redistributing the motive force among the whole mental mechanism, those excited faculties return to their normal condition, the ecstacy ceases and the patient is as dull and insensitive as before.

The remarkable phenomena which Phrenology has claimed as positive proof of her own title may be thus accounted for. The brain of the Somnambule is passive. Parts of it are called into activity by the touch of the operator. But the touch is merely the indication of his Will. He desires that a certain mental faculty of the patient, then dormant, shall become active. In fact, he wakens that part only of the passive brain. As fully described above, the other parts of the brain remaining dormant, the awakened part concentrates in itself the entire of the motive force which, in the normal condition, would have been distributed among many parts. Hence the abnormal activity and exaltation of mind, in a very limited direction, which form so remarkable a feature of this phenomenon.

Another explanation has been offered. May it not be that the mind of the experimentalist suggests the particular idea to the mind of the patient by the process of *mental communion,* already described? (p. 182). May not the astonishing results we witness be caused by mental suggestion and not by touch at a supposed site of an unproved brain organ? Such a solution deserves inquiry. It is true that some reported cases

appear to negative this theory. But those cases require to be reviewed, with careful reference to the new light thrown upon them by the more recent recognition of "mental communion." The conclusive test would be for a Somnambule, ignorant of phrenology and on whom experiments had never been tried, to be manipulated by a person equally ignorant, so that neither the Will of the one nor the touching of the other could possibly influence the result. If *then* the asserted faculties should be excited and exhibited, the proof would be almost conclusive that the brain is really structured as it has been mapped by GALL, SPURZHEIM, and COMBE, and that the action of the Somnambule was not an echo of a thought of the experimentalist. Until such a test be tried, the question of cause must be an open one.

The phenomena of that which is wrongly termed Clairvoyance (but which might be called more properly *Super-sensuous Perception*, for which the reader is referred to the next chapter) are more difficult of explanation. The majority of them are explicable by reference to mental communion; but others, equally authentic and familiar, do not admit of that solution, as, for instance, perception by the mind of objects not perceptible by the sense of sight—at least, as that sense is normally exercised, through the medium of the eye.

But it is not necessary to invoke supernatural influences for the solution of the problem. It may be explained by known natural laws. Further observation and experiment must determine if the explanation be the true one. I offer it as a suggestion merely. Science asserts now that all we call "matter" is made of molecules floating in the ether that occupies the whole visible universe. These molecules combine in various proportions to produce the various things we call "substances." But these molecules are not at rest, and do not touch each other. They are in continual motion, even in the bodies that to our coarse and very limited senses are what we call "solid." Through these moving masses of molecules the physical forces (or as

Professor TYNDALL contends, *the one motive force* which presents itself to us in various forms, according to the mode of its motion) are incessantly passing, changing the combinations of atoms and molecules. Light, as one form of that force or one mode of that motion, passes readily through some substances, with difficulty through many substances, and not at all through others. The eye is constructed to receive the rays of light and pictures of forms and colours impressed by those rays upon the retina. The nerves of sight convey those impressions to the brain. The brain imparts them to the Conscious Self. Substances through which those rays of light pass are called *transparent*, being no impediment to vision. Substances through which they do not pass, and by which vision is impeded, are called *opaque*.

But some of the other modes of the motion of this force (as, for instance, that called *magnetic*), unlike its mode of motion which we call light, find few obstructions to their passage anywhere. Consequently, if the Conscious Self, or the brain, can, in certain conditions, receive and perceive the magnetic, or any other force, as the eye receives and the optic nerve perceives the force of light, *opacity* would not exist; all substances would be transparent and objects would be perceived by the mind which, in the normal condition of the mechanism, are imperceptible because invisible.

A third solution is suggested in the modern recognition by Science of the existence of an ether occupying all space—at least within the small circle of the visible Universe. All perception, it is contended, must be by means of *motion*. Something changing its position impinges upon the recipient, be it brain or Soul. May it not well be that the motions of the infinitely refined *ether* penetrate and are perceived by the Conscious Self when the ruder motions of the denser *atmosphere* are imperceptible by reason of the temporary paralysis of the senses.

A Somnambule, with whom I experimented largely, thus described to me the process by which he perceived

words and pictures wrapped in a dozen envelopes of brown paper. The packet was placed by him, sometimes against his forehead, sometimes against the back of his head. He spoke of the act as "looking" and "seeing;" it appeared to him to be an exercise of the *sense of sight*, although he did not and could not use his eyes in the work.

"When I look very hard at it," he said, "after a little while a bluish flame seems to come over the paper; then that goes and I see the next paper; then the blue flame plays over that and I see the next, and so on until at last I see the printed words just for a second or two and then they vanish."

I tried the experiment of folding the writing on itself. He could not then read it. Asked why, he said, "For the same reason that you could not read it. The letters cross each other and the strokes run all ways. It is impossible to make them out."

The explanation of the healing power of hypnotism is sufficiently obvious, without invoking the supernatural. The diseases to which alone it is applicable are nervous maladies, or such as are in some way the result of irregular or imperfect nerve action. The motions of the hand (called "passes") slowly and steadily direct the *attention* of the patient to the disordered parts of the body over which they are made. When attention is continuously directed to any part of the structure, there is by that act of attention an increased flow of nerve force from the nerve centre to that part. An increase of nerve force follows the hand of the operator; but it does not, as he supposes, proceed from himself. It is self-generated, although it is directed by his action to the place where it is wanted.

This process, often repeated, restores by degrees the nervous energy at the seat of the malady, supplying the vital or nerve force by whose aid alone the disordered structure can be made to resume its healthy functions.

Such is the simple explanation by Psychology of healings by "faith" or "mesmerism," and doubt-

less of not a few of those of which legitimate medicine boasts.

Rigidity of the muscles induced and relaxed at the Will of the operator, and its attendant phenomena, may be thus explained:—

This rigidity is not peculiar to Somnambulism. It is seen also in an affection well known to medicine as *Catalepsy*. In this disease, some or all the muscles of the body become suddenly stiffened. The whole frame is, as it were, changed into a statue. It reverses the fable of Pygmalion. Instead of the marble melting into flesh, in catalepsy the living form becomes a statue, saving only that it breathes. No force can produce flexure of any limb. There is no motion of the features save the quivering of the eyes. There is no consciousness on the part of the patient of external existence. We know not if he dreams, for the cataleptic cannot *act* his dream. Whatever the posture at the moment of attack, it is preserved until the ceasing of the paroxysm. It may not continue more than a few minutes; it may last for many hours.

It has been stated in a previous chapter that a very similar condition is readily produced in Hypnotism, not as an exceptional, but as an almost universal, characteristic. But there is a notable difference in the exhibition of it. In natural Catalepsy the whole body is made rigid at the same instant. In the Somnambule, any limb may be made rigid at the Will of the operator—a finger, one arm, or one leg; or each limb may be affected in succession, until the whole body is in the cataleptic state. So the body may be made to assume any attitude at pleasure and remain fixed in that position. The living patient resembles the lay figure of the artist in that it may be posed as easily, and so kept as long as the operator desires.

What in this cataleptic condition is the state of the muscular fibre? It is not in *contraction*. The muscles have not the cord-like aspect that attends constriction.

Suppose the Somnambule lying in an unconscious

state upon a sofa, every limb relaxed. At the Will of the operator, expressed by gently stroking the limb, the muscles suddenly become rigid. There is no other visible change. There is no spasm and the muscles do not contract unless desired to do so. It is not until an endeavour is made to move the limb that we discover such stiffness that it cannot be lifted without lifting also the whole body, which itself may be made as rigid as if it had been hewn out of wood. In this state it will bear immense weights, precisely as if it were constructed of wood and not of flesh and bone.

How is this curious condition brought about? What is the process, bodily or mental, by which that rigidity of the muscles is produced?

First, observe the condition of the muscular fibre. It is not in a state of contraction, unless the limb is placed in a position that compels contraction. It simply *stiffens* in whatever posture it may be, precisely as if it were the limb of a corpse. It will not contract after the condition has taken place. Whatever the state of the muscle at the moment when the condition occurs, in that precise state it continues so long as the condition lasts.

In the normal state, the nerve force, conveyed to the muscle by the nerves which permeate it in all parts, causes the muscle to contract, in obedience to the Will or by involuntary excitation. If the connection between the nerve centre and the muscle be severed, the muscle cannot be moved by any voluntary effort. Save that it is still fed by the blood, it is for all purposes of use as marble.

This is the precise condition of the muscles of one or more limbs, and sometimes of the entire structure under the command of the Will, during the cataleptic state so commonly seen in Hypnotism. The immediate cause of the rigidity of the muscles in catalepsy is the absence of the force, directed by the Will, which, in the normal state of the organism, gives to the limb the motions desired by the Intelligence. The immediate

cause of the cataleptic condition is the severance of the connection between the controlling Will and the muscles it moves. So it is in Paralysis. But there is this difference, that in paralysis the severance is the result either of organic lesion or of obstruction by pressure, and is more or less lasting. The catalepsy of Hypnotism is due to some influence suspending, but only for a short time, the connection between the Will and the muscles.

Such being the actual condition, however brought about, let us trace its consequences. For an instance; suppose the arm to be the limb whose muscles have been deprived of their usual supply of nerve force by interruption of the flow of the force at some point between the brain and the extremities of the nerve cords. The limb lies senseless and motionless. In whatever position it is placed by external force, so it remains. The muscles have no consciousness of fatigue or pain; the nerves, that in their normal state impart to the mind the sensations we call weariness and pain, are unable to impress the mind. This is the *rationale* of the rigid limb remaining so long without apparent fatigue in positions the endurance of which, if the Will had been active or the nerves of sensation operating, would have been impossible to be preserved for five minutes.

What characterises this temporary severance of the connection between the Will and the answering limb—between the nerve centre and its extremities? It will be remembered that the primary features of Somnambulism are paralysis of the *Will* and suspension of the *consciousness*. The necessary consequence of this is that, if the machinery of the body devoted to voluntary action moves at all, it must be automatically; that is to say, the mechanism works without the control of the Will and without knowledge of its action by that entity (whatever it be) here called "the Soul" or "the Conscious Self." The immediate condition is perfect passiveness. Roused by some impulse communicated *from without*, the brain,

and through the brain the nerve system, which in the normal state is under the control of the Will, in this paralysis of the Will is set in motion by the influence of whatever Will is in that undefined relationship to it called *en rapport*. This foreign Will operates with more or less of power, but always with a force inferior to that of the native Will by which the brain is usually governed. So long as that stronger influence is continued, the action of the subject brain continues. When it is withdrawn, the precedent passive condition is restored.

The Physiology and Psychology of Catalepsy may be thus explained. When in the normal state your arm is at rest every muscle is relaxed. But if you *Will* to use your arm, the nerve carries the command from the ganglion at the base of the brain, which is the presumed seat of the Will, to the arm, and instantly each one of the nerve fibres that are attached to the muscles either itself contracts and pulls the muscle, or more probably imparts to the muscular fibre a stimulus by which its molecules are brought closer together.

But, when the Will is paralysed in Somnambulism we have this remarkable phenomenon. The passive brain, not being subject to the control of its own Will, is moved by the Will of any mind that chances to bear to it the relationship termed being "*en rapport*." What is the precise nature of this connection is as yet but very imperfectly understood. It is not precisely the sympathy by which one mind is often unconsciously attracted to another mind. It is rather a physical than a psychical influence. It may be that to become *en rapport* with the patient the operator must be within the sphere of his nerve atmosphere, that is to say, the nerve force which, according to Dr. RICHARDSON, extends beyond the extremities of the nerves in certain constitutions and, in the condition of somnambulism especially, passes abnormally beyond its usual limits.

If the Will of the operator desires that the limb shall become rigid, and intimates that desire by drawing the hand over the part sought to be affected, the brain obeys

the Will, the nerves follow the direction of the brain, the muscles obey the nerves, and the limb stiffens, precisely as it would have done if it had been acting in obedience to its own Will. Now observe the peculiarity. If a limb is stiffened by direction of its own Will, the rigidity is brief, because the Will wearies with its own effort, and that sense of weariness, which is in the brain alone, is by a well-known law transferred to the limb.

But when the Will of the patient is suspended and his brain, having ceased to be self-controlled, is set in motion by another Will, the nerves acting in obedience to that Will cause the same action of the muscular fibre, but with a different result. Under the influence of that foreign Will the muscles become rigid in any position in which they are placed and so remain until that or some other Will intervenes to incite the brain to change the condition of the nerves. Weariness is not felt, because the position has not been maintained by a continuous effort of the Will of the patient. Another Will, directing the nerve force, has placed the muscles in certain positions. So they must of necessity continue until the restoration of the Will of the patient or until the interposition of some other Will changes their condition by again setting the brain in motion, through the brain the nerves, and through the nerves the muscles of the rigid limb.

So far as the muscle itself is concerned, one arrangement of its particles is as painless as another. It is the brain and the nerves that are made uncomfortable by certain postures. Thus it comes that a limb stiffened in Somnambulism by the Will of the operator can remain in any position, however painful in the normal state, and for any length of time, without the slightest inconvenience.

The Self is not conscious of the condition of the limb. Probably its state is not communicated even to the brain, because of the paralysis of some part of the nerve mechanism between the limb and that Self.

And what *is* this remarkable Physiological and Psychi-

cal condition of insensibility and unconsciousness to pain and bodily injury ?

As with the phenomenon last noticed so with this; there is a severance of the nerves of sensation and motion from the Conscious Self. There can be little doubt that in this state the message of an injury done, which is the use and purpose of *pain*, is received by the nerves of sensation at the injured spot and conveyed by them to the sentient brain. There it is that the chain is broken. Either the brain does not receive the message so brought to it, or if received it is not transmitted thence, for no consciousness of either the hurt or the pain is imparted to *the individual* being whose body has been injured.

But, although the sense of *pain* is suspended in the patient in his passive state, it can be revived at the Will of the operator. The patient holds a heated coin without exhibiting the slightest sense of pain, even if his flesh be burned. But if the same coin be handed to him when cold, the operator silently willing that it shall appear to be hot, the patient drops it instantly, exclaiming that it burns him.. So it is with other pains and alike with or without cause. They are felt—that is, the idea of pain presents itself—at the bidding of the operator. They are felt when the mechanism of the passive Mind is set in motion by a foreign Will. They are not felt when the machinery is at rest or acting automatically without the control of *any* Will.

The most remarkable of the phenomena exhibited in Somnambulism is the *double life* it undoubtedly reveals. In Somnambulism there is no consciousness and consequently no memory. When the patient is restored to his normal state, he has no recollection whatever of anything that occurred in his hypnotic state. From the moment of unconsciousness to the moment of waking there is no sense of *time*. Upon recovery, the Mind takes up the thread of its existence at the point at which it was broken when the condition commenced. The thoughts flow on as before, in the same channel as before,

and it is as if so many hours had been blotted from the life of the patient.

It is not really so. One life has been interrupted, but another life has been acted. The Somnambule has an existence altogether apart from his normal existence and that existence has its own memory, more perfect and tenacious even than the memory of his waking life. He has *two lives*, his waking life and his trance life. When next he passes into the hypnotic state, he renews the suspended life at the precise point at which it had been interrupted and then all the memories of that dream life revive. Not only does he live his hypnotic life and cease to live his waking life, but he remembers then all that has occurred during his past somnambulisms and has no memories of his normal existence. So complete is his return to his hypnotic life that, although days or even weeks may have elapsed, during which his mind had been occupied with the countless impressions of waking life, none of them come to him in that dream life, but he takes up the thread of his hypnotic existence at the very point where it had been severed and continues the last dream as if it had never been disturbed. If he be awakened while singing a song, so that it is broken in the middle of a bar, and a fortnight afterwards he again passes into the somnambulist condition and the same mental faculty is excited, he will resume that song at the very note at which he had dropped it fourteen days before and continue whatever other actions had been then in progress as if they had never been disturbed. Moreover, he then remembers accurately, not merely every incident of the last trance, but the events of all former trances. But he has no knowledge of *any* incident of his waking life.

This phenomenon is of the highest interest to Psychology and I ask the Student to give to it the most earnest thought. Traced to its sources, it must throw a blaze of light on many problems at present extremely obscure. Here we find a twofold *mental existence*, each having its own memory, its own trains of thought,

its own series of connected actions, yet one series wholly distinct from the other, and each without consciousness in the one state of an existence in the other state. Nor is this all. The mental power differs greatly in the two lives. In the hypnotic state the mental faculties are vastly more exalted than in the waking state and often are seen to be developed to an extraordinary extent.

But, although there is no *recollection* in one state of occurrences in the other state, it is not that there is no *memory* of them. They are written upon the brain as perfectly as are any other impressions made upon it, as proved by the fact that they are recalled when the condition recurs under which they were received. The *Will* has no power to recall them, because there was no consciousness of their reception. Nevertheless we have seen how they are impressed upon the unconscious mind.

Again I ask, may not this throw some light also upon that obscure chapter in mental physiology, the manner in which thoughts and motives come into the mind without our Will and often in despite of it? Why did *that* thought come? What prompted *this* idea at that moment?

May not this phenomenon help otherwise to solve the problem of memory. We have a *memory* that stores up the impressions made upon the mind involuntarily. We have a power of *recollection* that is under the control of the Will. But there is also a recollection that is involuntary, when memories come uncalled for. Is it not probable that every impression made upon the mind by the senses, and even the self-produced pictures of the mind itself, are in fact stored up there, although we are unconscious at the moment of such an impression being made or idea formed?

The discovery of the microphone has revealed to us motions of the atmosphere—waves of sound—ever streaming about us, which our coarse senses cannot perceive. In this now proved fact we shall find the

solution of many problems, physical and psychical. It explains clearly some of the most mysterious phenomena of Somnambulism and Psychism.

The reader cannot fail to note how *all* the phenomena of *Somnambulism*, whether *natural* or *induced*, converge to the conclusion that the Mechanism of Man is not material merely but constructed of something other than the body —that there is, in fact, an entity, distinct from the body, a real substantive *thing*, competent to perceive and act when the body is paralysed and insensible.

And this *Something* is the CONSCIOUS SELF,—call it *Soul*, or *Spirit*, or by any other name,—whose existence it is the purpose of this treatise to prove by *facts* in Nature, such as Science now rightly demands. Thus, by Science itself may we hope to refute the materialism of Science.

BOOK V.

SUPERSENSUOUS PERCEPTION.

INTRODUCTION.

PERHAPS many readers will deem this, certainly one of the most remarkable, profoundly interesting and suggestive of the Psychological phenomena, to be one phase of various abnormal states of the mechanism, rather than a distinct, definite and independent faculty developed under certain conditions.

So it seemed to me at first. But further investigation of the facts satisfied me that Supersensuous Perception is often developed alone. Undoubtedly it is so intimately associated with some other classes of phenomena that it is difficult to avoid frequent repetitions of reference to it. But the scheme of this inquiry into the Mechanism of Man would be incomplete without a section devoted to the separate examination of so significant a phenomenon as that which I have presumed to entitle *Supersensuous Perception.*

For this faculty is not exhibited by Somnambules alone. It is developed occasionally in persons having the full possession of their senses and in apparent enjoyment of health. It is manifested in some maladies. There are few Doctors with professional experience who have not witnessed many instances of it.

Supersensuous Perception is supposed by many to be

developed in the course of ordinary sleep and dream. The fanciful theory is, that in sleep the Soul sometimes quits the body and so *sees* the objects which the Conscious Self in dream *believes* that it sees though it does not see. But there is *no* evidence to support the conjecture. Cases that appear in their first aspect to favour this fancy fail, upon closer examination, to support the claim. Dreaming of some distant place or person, pictures that are merely mental are readily mistaken for the impressions of external objects brought by the sense of sight. Thence the hasty conclusion, that the Conscious Self (or Soul) in some mysterious manner must have quitted its slumbering tenement and visited *in person* the scenes so vividly depicted to the mental conception. I do not venture to assert that such a power *may* not belong to the Soul; but I have sought in vain for *evidence* of it and have found *none*.

Supersensuous Perception is, however, an attendant upon other abnormal conditions of the mechanism. It is shown occasionally in delirium and insanity. It is frequent in Somnambulism, whether natural or induced, as the reported cases amply prove. Hereafter it will be found as an almost constant attendant upon the condition of Psychism. In all, the existence of such a faculty explains many phenomena for which no other rational theory can be suggested.

That it has a distinct existence, as a distinct mental or psychological faculty, is proved abundantly by the numerous cases reported in the medical journals and recorded by eminent physicians of all countries, attesting an extraordinary power of perception in patients suffering from cerebral or nervous excitement. A few of the multitude so recorded will suffice to satisfy the reader that like cases, occurring in other abnormal conditions, are not necessarily untrue because they are strange and because Physiology cannot at once explain them.

A great service will be done to Science if the abundant proofs of natural exhibition of the phenomena should incline the Student not summarily to dismiss, as being delusions or frauds, the like phenomena when produced artificially.

CHAPTER I.

THE PHENOMENA OF SUPERSENSUOUS PERCEPTION.

We find here another instance of misconception and consequent prejudice, resulting from a misnomer, itself the result of what seems to be among the most frequent of human failings,—the desire to find instantly a cause for whatever is new and strange. One of these misnomers was the French word *clairvoyance*.

Clairvoyance means literally *clear-seeing*. This title has misled multitudes into belief that the phenomenon is really what it is called. According to the popular notion of clairvoyance, in the abnormal conditions under which the phenomenon occurs the eye—the actual organ of vision—*sees* far beyond the natural range of sight and even when opaque bodies are interposed between the object and the eye.

Let it be distinctly understood, at the commencement of this inquiry, that no such meaning will here be given to that term. Purposely to prevent the Student from being so misled, I have ventured to affix to this and some nearly allied psychological phenomena a new name, chosen because it simply expresses *the fact*, without offering or insinuating any conclusion as to the causes of the phenomena or the process of their development.

The term *Supersensuous Perception* is here intended to indicate an asserted power of the Conscious Self, in certain conditions not as yet understood, to obtain per-

ception of external existences in some other manner than through the accustomed media of the senses, because beyond their capacities.

As already stated, the Mechanism of Man is constructed for the support of his being in this molecular world. It works in compliance with certain conditions imposed upon it by the *physical* laws governing that world. The Individual whose mechanism is in its normal state can receive intelligence from the external world only through the media of the senses. He can perceive nothing of whose presence and qualities the senses do not inform him. The eye conveys forms and colours, the ear sounds. But in certain conditions of the organism, when the machine is more or less disordered and its parts thrown "out of gear," perception by the Self appears to occur directly, without the intervention of the senses. The evidence of this phenomenon is overwhelming. No fact in Science is supported by a larger array of proofs. Ingenuity has exhausted itself in endeavours to find other explanations of these phenomena. But the proofs are too many and too well attested by competent observers to be accounted for upon any theory of imposture or delusion.

If the cases reported in the Medical Journals and by qualified observers were collected, they would fill many volumes. Restricted space compels the selection of a few, gathered from the multitude that offer themselves to the Student of Psychology.

Supersensuous Perception plays an important part in some of the abnormal conditions of the mechanism described in this volume and will be found to explain much that hitherto has been inexplicable. Frequent reference must be made to it in future pages. Indeed it was to avoid the necessity for repetition that this preliminary notice has been introduced.

Considered in its Physiological as in its Psychological aspect, two differing explanations have been suggested for scientific inquiry.

The physiological explanation is the same as that

offered in explanation of somewhat similar phenomena occurring in Somnambulism.

The psychological process may be suggested as thus. If the Conscious Self be an entity distinct from the body, which is merely the material mechanism for communication between the Self and the material world, it is a reasonable assumption that, when released from the conditions of its world life, it will exist under the altered conditions of a changed stage of being. Whatever the form in that new existence, its structure will certainly be something other than *molecular* and therefore subject to such new conditions as may be demanded by a new form of atomic structure. It is not in itself improbable that, in this stage of being, in certain abnormal states of the mechanism, the relationship between the component parts of the triune structure—*body, mind, soul*—may sometimes be so dislocated that the Conscious Self can have a partial release from the conditions imposed by the material mechanism and obtain perceptions by impressions directly made. Certainly it will be so under the conditions of a new state of being which is not a process of transformation, as is the vulgar notion, but of *evolution*, as is the scientific view of the scheme of creation. If this be a reasonable suggestion, it is not unreasonable to ascribe the proved facts of mental communion of ideas and of Supersensuous Perception to a like direct perception by the Conscious Self without the interposition of any Sense.

Dr. ABERCROMBIE, in his famous treatise on "The Intellectual Powers," has collected from authentic sources a large number of instances of Supersensuous Perception, for which the Reader is referred to his most able and interesting work. Some of the cases reported below came within my personal knowledge and the voucher for their truth is my own experienced care in the examination and weighing of evidence.

I was present at a test experiment with Alexis at Exeter, as previously arranged by some scientific men. One of the party, a physician, had requested a friend at Tiverton to send him a written

word enclosed in six sealed envelopes, naming to no person the word he had so inclosed. The eyes of Alexis were bandaged; the packet was put into his hand; its contents were unknown to any person present. He placed it against his forehead for two or three minutes; then with a pencil he wrote the letter "u;" again he placed it on his forehead and added the letter "n," and the same process was repeated until the word "understanding" was written. This he declared to be the word within the envelopes. The packet was opened—the six seals found unbroken, and the six envelopes perfect (indeed, it had never been out of our sight). The word "understanding" was found in the central envelope. He had not only written the right word, but he had *exactly copied the forms of the letters.* Afterwards he was blindfolded by a skilful Physician of the company, sticking-plaister being placed over his eyes, two wads of wool over the plaister, and four handkerchiefs tied over the whole, leaving nothing of his face visible but the nostrils and chin. In this condition he joined a whist table and played a rubber of whist, rapidly and without once mistaking a card, instantly detecting tricks that were attempted by way of test.

Another experiment with the same Somnambule:

I am informed by one of the most eminent of our Judges that he was once visited by Alexis at his (the Judge's) lodgings. Not only did he read the contents of sealed envelopes, but the printing on named pages of unopened books. "I had received," said my informant, "on that morning a book which the publisher had just issued. I was cutting the leaves when Alexis called. I laid it upon the table with the paper knife I had been using within the leaves I had last cut. I had not myself read a line of it and did not even know at what page the knife was lying. I asked him jestingly if he could read from the page where my paper knife then was. He said he would try. He laid his hand on the closed book and in a few seconds uttered a sentence. On turning to the page, I found that sentence there."

From a near relative I received the following. The noble Lord, the Somnambule referred to, died not long ago.

At our school at Tonbridge was a boy, then the son of a commoner afterwards ennobled for his military services. At that time neither myself, nor the lad, nor any of the boys, knew anything about "Mesmerism," nor had any of us the slightest conception of what it was we amused ourselves with viewing. Young H. seemed only to go to sleep when we told him to do so.

But his eyes alone were shut, for he walked about, and talked, and said he could see things in our boxes. One of our games with him was to place a book upon the floor, throw the blanket over it and then tell him to read any page we named. He always did so quite rightly. But none of us knew what was on that page. We tried this so many times, with so many different books, that it was impossible he could have known beforehand what the page contained. We tested him with pocket-books and letters, and he did the same. After a time it reached the ears of the Head Master, and he put a stop to it at the request of the boy's parents.

There can be no doubt that similar cases would be found abundantly, if sought for. The households are few that have not children or servants one or more of whom would be amenable to Hypnotism and by whom all of these phenomena would be exhibited, if due patience and skill were employed in their development.

The following case was reported to me by a Surgeon of the Royal Artillery. It occurred some years ago.

A party of children, sons and daughters of the Officers of Artillery stationed at Woolwich, were playing in the garden. Suddenly a little girl screamed and stood staring with an aspect of extreme terror at a willow tree there. Her companions gathered round asking what ailed her. "Oh," she said, "there—there—don't you see—there's papa lying on the ground and the blood running from a big wound." All assured her that they could see nothing of the kind. But she persisted, describing the wound and the position of the body, still expressing her surprise that they did not see what she saw so plainly. Two of her companions were daughters of my informant (one of the surgeons of the regiment), whose house adjoined the garden. They called their father, who at once came to the spot. He found the child in a state of extreme terror and agony, took her into his house, assuring her that it was only "a fancy," and having given her restoratives, sent her home. The incident was treated by all as being what the doctor had called it and no more was thought of it. News from India, where the child's father was stationed, was in those days slow in coming. But the arrival of the mail in due course brought the information that the father of the child had been killed by a shot and died under a tree. Making allowance for difference in the counting of time, it was found to have been about the moment when the daughter had the vision at Woolwich.

This case is of exceptional value, inasmuch as it

occurred in the presence of a large party, from two of whom I received it, and was vouched to me by the medical man who heard the assertion of the child and treated it as a waking dream.

As nothing was seen by her companions, it was clearly not a ghost story. It admits of explanation as a case either of supersensuous perception or of mental communion. The child was (as in so many other instances of which the evidence is overwhelming) in an abnormal condition. The Conscious Self had power of perception by some other means than the ordinary machinery of the senses. She perceived her father himself, as he was, and not his ghost. To what extent Mental Communion and Sympathy may operate in the directing of such a perceptive power, or if it may not be the sole agent, is a question that well deserves consideration.

A very remarkable case of Supersensuous Perception was reported to the "Psychological Society of Great Britain" by a Medical Man of Beaminster, in Dorset, as having occurred in his own practice.

Miss A——, the subject of the report, was, at the time of the occurrences narrated, about nineteen years of age and had been for three years frequently attacked by spasmodic hysterical croup of a violent character She had for this been bled some 250 times. One day I went to see her, and thinking the treatment to which she had been subjected to be absolutely destructive, I formally refused to carry it out, for which the whole family almost abused me. To remove the bone of contention from the sick-room, I asked them to follow me to the furthest room of a long house. Between the two rooms there was a long passage and staircase, with a door at the bottom of the staircase. In the sitting-room I began to tell her friends that she was much under the influence of her own will and was rendered worse by the treatment to which she had been subjected. Then her mother put her hands before my mouth and said that her daughter upstairs could hear every word I uttered. Surprised at this assertion, I collected all the family, servants included, in the sitting-room. Then I went to the patient's apartment and returned, closing all the doors. In an ordinary tone of voice I denounced the treatment and said that she could cure herself by endeavouring to overcome the tendency to the attacks. Then I returned to the bedroom, still finding all

the doors closed as I had left them. When I entered it, Miss A. repeated word for word all that I had said to her friends in the room below. On another occasion, my partner went to her during a heavy snowstorm, and on returning dispatched a boy with physic. The boy did not reach his destination and the snowstorm extinguished all traces of him. Two weeks after the boy was lost, the patient said to her sister that she knew where Tom was; that he would be found standing by the right-hand gatepost of a field with some medicine in his hand, which was pressed against his left breast. He was actually found in this position.

Supersensuous Perception seems sometimes to present itself to the mind in a shape that is mistaken for dream. The following is an instance within my own experience:

It occurred in the course of a trial at which I was present. A murder had been committed in Somersetshire. A farmer had disappeared and could not be found. Two men, living in different villages, some distance from where the farmer had disappeared, stated the particulars to the local magistrates of a dream both had on the same night. They said that they had dreamed that the body was lying in a well in the farmyard. No well was known to be there at all, so the two men were laughed at. The police, however, went to the yard, and although there was no appearance of a well, on removing an old manure heap, they found a dry well that had been long unused, and in it the body. Then, of course, the public suspected the two men. But it turned out that the farmer had been murdered by his two nephews, who had thrown his body down this disused well. The two men swore that they did not know of there being a well in the yard. All this was proved in court at the trial, and the two nephews were hanged for the crime.

It is upon record that the "Red Barn Murder," as it was called, was discovered and proved in a similar manner. These were obviously cases of Supersensuous Perception. The two witnesses were probably unconscious somnambules, and the peculiar condition under which the faculty is developed was caused by the intense mental excitement consequent upon the disappearance of the farmer.

Mr. Percy Gordon, a Solicitor of London, reported to the Psychological Society the following remarkable instance.

He had been travelling in Germany with Mr. Hutchinson, a gentleman well known in Paris, and, while they were in the train together, Mr. Hutchinson recommended him to read a book entitled "Three Years before the Mast." His friend had been born in America, of good family, but in that country it was considered almost the proper thing for boys to run away to sea. Mr. Hutchinson had done so and obtained work on board a trader which made passages between London and New York. He instructed his friends that letters would find him in London and Paris. On reaching Europe he received a letter telling him that his sister was dangerously ill and asking him to return home at once if he wished to see her again alive, and he started for New York when she was suffering from fever and delirium. When he was within about a day's sail of New York, on Christmas eve, she told her friends that her brother Alexander was coming back and would arrive on the morrow. Mr. Hutchinson had never written a letter home of any kind whatever. She described the places he had visited, and told them what presents he had collected in Paris, London, and Rome, for various members of the family. She further stated what particular presents were intended for each particular individual. When Mr. Hutchinson arrived he was informed of this, and they gave him a list of the things which she said he had brought, and which were at that time packed up on board the ship. The list was quite accurate. He had not the slightest doubt about Mr. Hutchinson's veracity as a gentleman.

This was a case of mingled supersensuous perception and mental sympathy and communion. It may be the latter wholly.

Another interesting case was reported by the Rev. W. S. Moses:

A friend of his who lived in Lincolnshire died, and he was invited to the funeral. He could not go, and was sitting quietly at home in London at the time, without being conscious in any way of anything abnormal. He became unconscious, and afterwards found by his watch that he had been in that condition for two hours. Afterwards, bit by bit, the details of the funeral of his friend came into his mind; or, rather, bit by bit he brought to recollection a scene he had witnessed. He remembered seeing the officiating minister and the mourners, just as if he had been present at the funeral, so he put all the details on paper. Moreover, the same day he posted a full account of the funeral to a friend of his who had been there, who answered in complete astonishment as to how he could have obtained the details. The minister was not the one whom he had previously expected would officiate, the clergyman having been changed at the last moment.

The funeral started from Lincolnshire, but took place in Northamptonshire. He saw and described the churchyard, a particular corner of the churchyard, and a particular tree there.

A gentleman of my acquaintance has, from childhood, possessed this faculty of Supersensuous Perception in a very singular form. Deaths of relatives are known to him, however distant they may be. These are not, as are so many of such cases of supposed clairvoyance, impressions remembered after the event or suggested by previous knowledge of illness. He names at the moment the impression upon his mind. His father died *suddenly* while he was at Winchester School. He felt the warning intimation and told his schoolfellows that he was sure his father was dead. A telegram afterwards arrived calling him home, but announcing only severe illness of the father. In fact he was dead, as the boy had declared. This is not an accidental incident with him. It has occurred many times.

The Rev. CHAUNCY HARE TOWNSHEND has reported the following, which might possibly be the result of excessive exaltation of the senses—but was more probably an instance of Supersensuous Perception.

The Chevalier Filippi, of Milan, doctor of medicine, and a most determined opponent to mesmerism, has acknowledged to me that some of his patients, more particularly women after their confinement, when suffering from nervous excitement, have distinguished the smallest objects in darkness which appeared to him complete. The same physician related to me the following occurrence:—Visiting a gentleman who had an abscess, he found that the patient had not many hours to live; this, however, he did not tell him, but answered his inquiries about himself as encouragingly as he could. Taking his leave, he shut the door of the sick chamber, and, passing through two other rooms, the doors of which he also carefully shut, entered an apartment where some friends of the patient were assembled. To these he said, speaking all the time in that low and cautious tone which every one, in a house where illness is, unconsciously adopts,—"The Signor Valdrighi (that was the name of the invalid) is much worse. He cannot possibly survive till morning." Scarcely had he uttered these words when the patient's bell was heard to ring violently and soon after a servant summoned the doctor back again into his presence. "Why did you deceive me?" exclaimed

the dying man; "I heard every word you said just now in the further apartment." Of this extraordinary assertion he immediately gave proof by repeating to the astonished physician the exact expressions he had made use of. Subsequently, upon Dr. Filippi testifying his surprise at this occurrence to the servants of Signor Valdrighi, they declared that their master's hearing had become so acute since his illness, that he had frequently told them all they had been talking of in the kitchen, which was even more remote from the sick room than the apartment before alluded to.

An instance very similar to that above narrated is reported by the late Lord BROUGHAM in his Autobiography, and I received *from himself* a personal assurance of its literal truth.

A most remarkable thing happened to me—so remarkable that I must tell the story from the beginning. After I left the High School, I went with G——, my most intimate friend, to attend the classes in the university. There was no divinity class, but we frequently in our walks discussed and speculated upon many grave subjects—among others, on the immortality of the soul and on a future state. This question, and the possibility, I will not say of ghosts walking, but of the dead appearing to the living, were subjects of much speculation and we actually committed the folly of drawing up an agreement, written with our blood, to the effect that whichever of us died the first should appear to the other and thus solve any doubts we had entertained of the "life after death." After we had finished our classes at the college, G—— went to India, having got an appointment there in the civil service. He seldom wrote to me, and after the lapse of a few years I had almost forgotten him; moreover, his family having little connection with Edinburgh, I seldom saw or heard anything of them, or of him through them, so that all the old schoolboy intimacy had died out and I had nearly forgotten his existence. I had taken, as I have said, a warm bath, and while lying in it and enjoying the comfort of the heat, after the late freezing I had undergone, I turned my head round, looking towards the chair on which I had deposited my clothes, as I was about to get out of the bath. On the chair sat G——, looking calmly at me. How I got out of the bath I know not, but on recovering my senses I found myself sprawling on the floor. The apparition, or whatever it was, that had taken the likeness of G——, had disappeared. This vision produced such a shock that I had no inclination to ask about it, or to speak about it even to Stuart; but the impression it made upon me was too vivid to be easily forgotten; and so strongly was I affected by it, that I have here written down the whole history, with the date, 19th December, and all the par-

ticulars, as they are now fresh before me. No doubt I had fallen asleep; and that the appearance presented so distinctly to my eyes was a dream, I cannot for a moment doubt; yet for years I had had no communication with G——, nor had there been anything to recall him to my recollection; nothing had taken place during our Swedish travels either connected with G—— or with India, or with anything relating to him or any member of his family. I recollected quickly enough our old discussion and the bargain we had made. I could not discharge from my mind the impression that G—— must have died, and that his appearance to me was to be received by me as a proof of a future state.

This was on December 19, 1799. In October, 1862 Lord Brougham added as a postscript:—

I have just been copying out from my journal the account of this strange dream: *Certissima mortis imago!* And now to finish the story, begun about sixty years since. Soon after my return to Edinburgh, there arrived a letter from India, announcing G——'s death, and stating that he had died on the 19th of December!

Perception by the Mind through some other medium than the senses could not be better authenticated than in these narratives. They are not ghost stories, like so many that are presented to us. No form was actually before the child in the garden nor the Lawyer in his bath. There were at least twenty witnesses to the first who saw nothing, though their attention was strongly directed to the imaginary object. There can be little doubt it was by this faculty of *Super-sensuous Perception* that to the mind of the child the vision of her father was suggested as he was at that moment, and so came to Lord BROUGHAM the suggested mental image of his friend. But what was the mental sympathy which so far away directed the attention of the child to its father and of the friend to the friend at the instant of the passing of the Soul from the body is one of the problems of Psychology, at present wrapped in obscurity, but which patient research may enable us to solve hereafter.

Had the child been alone at the moment of the vision and credence been given to her statement of what she had seen, it would have gone forth to the world as a

wonderful ghost story verified by the event. Nobody would have doubted that the spirit of the father had appeared to the child. But the noonday light and the presence of so many companions prove that it was only a vision of *the Mind*, which *perceived* what, through the limited sense of sight, it could not possibly have *seen*. Doubtless a vast number of the best authenticated ghost stories are to be explained in the same manner.

Having devoted much time and care to the inquiry, I am satisfied that an experiment probably often witnessed by the reader, is explicable by Supersensuous Perception. It had been exhibited in private rooms, but it was first introduced as a public exhibition by HOUDIN. It was afterwards shown in London by Anderson and his daughter. Other cases of the possession of this faculty have been discovered since. The most satisfactory, (because of the conditions under which it is produced and the great number of persons who witness it together), is that of Little Louise, lately exhibited at the "Royal Aquarium."

She is blindfolded and seated on a chair raised upon a pedestal just above the audience and in the midst of them, so that many persons are surrounding her throughout the experiment. She is about twelve years old. Whatever the communication, certainly it is not by sight; for even had she the use of her eyes, nine-tenths of the objects "described" by her are beyond or out of the range of vision. Her father goes among the seated audience far from her, and asks to be shown something. He says (and ANDERSON so informed me), that it is a condition of the experiment that the object should be seen by him. I was desirous to detect the trick, if such it was. I tried various tests, producing a variety of articles in different parts of the room of my own choosing. No objection was ever made to my standing anywhere. Thus it was: I produced a key. "What is this?" "A key, papa?" "Anything on it?" "Yes, 36, Russell-square on the handle?" Right. This was answered without hesitation. Then a railway ticket. "What is this, Louise?" "A railway ticket, papa." "From where to where?" "From Marlow to Paddington, papa." "What number?" "Two thousand one hundred and fifty-eight, papa." Right also. I produce a letter. "What is this?" "A letter, papa." "What is the address?" "Mr. Serjeant Cox, Moat Mount, Mill Hill, N.W." Right. "What is the postmark?" "Hendon, N.W." Right. Next a seal. "What is this?" "A seal, papa." "What is on

it?" She described the crest correctly. "Any words?" "Yes, Onward, Upward, papa." Once more, a coin. "What is this?" "Money, papa." "What is on it?" "A lot of queer marks, papa, I cannot make them out." It was a Chinese coin. I tried many more, but these suffice to show the character of the exhibition. She never made a mistake—never hesitated or paused for an answer. That the answer came from her lips is certain, for many were close to her and saw and heard her, as I did when the experiment was being tried by others.

How is this communication effected? Is it a clever trick, or is it Supersensuous Perception, or Mental Communion, or marvellous memory?

Many suggestions have been offered on the assumption of trick. When I first witnessed it with Anderson and his daughter, I suspected ventriloquism. She was placed upon a stage, far from the audience, with her back turned to them, and I surmised that Anderson's voice was directed so as to appear to the audience as an answer returned by her. He at once satisfied me that this conjecture was wrong by permitting me to stand at her elbow during the performance. The voice, beyond question, came from her lips, for I saw them move, heard the sounds, and when I placed my hand on them the answer was stopped. Another suggestion is that the floor is supplied with communicating wires, which when pressed by the foot of the father, convey to the child by signs the answer to be given. The objection to this is, that it is much too ingenious. Objects are inspected in at least twenty different parts of the large room of the Aquarium, and so many points of communication could not be concealed. To test this I continually changed my position. But everywhere the answer was given as rapidly and unerringly. Moreover, the experiment, tried in a private house where no apparatus can possibly be introduced, is equally successful.

The most plausible suggestion has acquired some importance, because it was asserted by HOUDIN himself. He states in his memoirs that his son was educated to the work by an elaborate system of pre-arranged signs. The tones of the voice of the questioner indicated the answer. The signs were, he says, arranged thus: They stood before a shop window, for instance, and agreed upon a different intonation or expression for each familiar article there exhibited. Thus, by the special manner of pronouncing in French the words, "What is this?" he suggested the desired answer. Obviously this would not explain the doings of Miss Anderson, Mademoiselle Prudence, Little Louise, and others of Houdin's successors. It is possible, but not probable, that a vocabulary of tones and words might be agreed upon to indicate a certain number of familiar objects—such as a watch, a seal, a hat, a letter, and articles that an audience would be likely to have about them. But no pre-

arrangement could possibly anticipate the number upon a door-key, the motto on a seal, the address of a letter, or the places and numbers on a railway ticket. If a child of twelve years could be taught the infinite variety of ideas that were to be expressed by an equally infinite variety of mere tones, in simply saying, "What is this?" it would certainly be far more miraculous and really more interesting to Mental Philosophy and Psychology than the assigning of it to the abnormal condition in which Supersensuous Perception and Mental Communion certainly occur.

The Pyschological explanation is simple, intelligible, and rational.

The case is one of what is commonly called "Thought-reading," but which is more correctly termed "Mental Sympathy," already fully described (*ante*, p. 182).

The mental impressions (that is, the motions of the fibres of the brain that attend every mental act) of the father are communicated to the brain fibres of the child, for as the harp-strings vibrate in unison, so do the brain-strings. Identity of brain action is identity of idea. Therefore, when the father read the seal in my hand, the impression of it was conveyed to her by the process of (1) motion of his communicating nerve of sight; (2) this motion communicated to the connected brain fibres; (3) perception of this by the Conscious Self. Identical motions being set up on the child's brain, they produced in her identical mental impressions. Thus what he *saw* she *perceived*, and doubtless these impressions presented themselves to her conceptions as being the results of actual vision.

The facts that prove a power of perception by some other process than the medium of the senses are so numerous that a collection of them would fill many volumes. I am, therefore, compelled to restrict myself to a short report of the most remarkable and instructive. Supersensuous Perception is not found in the condition of Hypnotism alone. It occurs, as already described, in *natural* somnambulism. It attends occasionally upon fever. It has been seen, though rarely, where no abnormal state of the mechanism can be detected.

There is some ground for concluding that it is a faculty possessed by all human beings in varying degrees, but called into action only under conditions of rare occurrence.

There appears to be little doubt that some such faculty is widely extended among the lower animals. No such differences of structure are found as to render it probable that the perceptive power is merely an excessive development of one or more of the ordinary senses. The phenomena point distinctly to the existence of a special faculty—*a sixth sense*, in fact—by which perceptions are obtained of external objects far beyond the utmost conceivable range of either of the five senses.

It would certainly appear to belong to birds. Only by the possession of some such perceptive power could the migratory birds find their way over land and sea from North Africa to Great Britain. But they do so, not to England merely, but to the same county, the same parish, the same field, the very same bush, they had quitted nine months before. It has been contended that they use their eyes in their journey south and note in their memories the prominent objects on the way and so follow the same route on the return journey. The conclusive answer to this popular theory is that, for the most part, they travel by night!

Dogs and cats have been carried in baskets and covered carts to strange places many miles distant and there escaping have returned directly to their homes.

Sheep parted from their flocks on their journey to Smithfield market have found their way back to their Welsh hills.

At Falmouth, the crabs caught at the Lizard, some twelve miles distant, are taken to the harbour, branded with the mark of the fisherman and placed in a box alive, to await sale. A box was broken and the crabs escaped. Three days afterwards many of them were again captured at the Lizard, to reach which they must have found their way to the mouth of the harbour, and

having arrived there, learned by some strange perceptive power in what direction their home lay, for it was far out of any possible range of vision and they had been carried to their prison in a boat.

The bee taken into a strange field will fly straight to its hive, though out of sight. Some years ago, crossing the Channel, I saw great multitudes of butterflies crossing also. They flew a few yards and rested themselves by alighting on the crest of a wave. It was almost a calm—at least, they were not driven by any wind. Their flight was from France to England. Such light breeze as there was blew from the English coast towards which the butterflies were flying. So far as I could see, the air was full of them. Millions that escaped the fish found their way to England and covered our fields. They could not have *seen* the English coast when they started on their flight to find it. But manifestly they had knowledge that land lay in that direction, or they would not have moved thither. They were never known thus to attempt to cross the Atlantic.

In his normal condition civilised Man developes no similar faculty. He has no need for it. He can find his way from place to place, obstacles apart, by the exercise of his reasoning faculties and of his imagination. He observes surrounding objects—the sky, with its sun, moon and stars—and the features of the country about him. From the former he learns the general direction in which the object of his search lies; the others shew him what is its near neighbourhood. Wanting these human capacities, the lower animals would be limited to a very small range of country. Migration would be altogether impossible if they were not endowed with some faculty by which they can obtain, without the processes by which our minds are made the guides of our bodies, a knowledge of the direction of distant places to which it is their natural impulse to resort. What that faculty is, if it be a positive perception of the locality itself, if it be accompanied with a perception of the intermediate space, we are entirely ignorant. It has been supposed

by many to be merely a blind impulse to move in a certain direction, without any consciousness of the object to be attained. But, although a blind impulse might induce a bird to fly, and even to fly in a particular direction by reason of some atmospheric influences affecting it, a blind impulse could scarcely carry it to a particular bush in a certain field in a distant country. If, however, as is most probable, the faculty is a special one—a sixth sense, in fact—it is no more possible to conjecture how it operates than it is for a man born blind to understand what is the sensation of sight.

If the Darwinian theory be true, that Man, in common with all other animals, is a slow development in the course of countless millions of ages from an inferior structure, we can easily understand how it is that the animal world has this faculty while Man has not. It is one of the animal instincts for which the intellectual faculties of reason and imagination have been gradually substituted.

But, like so many other peculiarities in our mental as in our bodily structure, that have been slowly superseded by other structures adapted to changed conditions of existence, we might by analogy anticipate survivals of this almost extinguished faculty and look for an occasional cropping out of it under special circumstances. May not this explain much, if not all, of the mystery that attaches to the phenomena about to be described as being exhibited in certain abnormal conditions of the mind, especially in the hypnotic state. As will be seen presently, this special sense is developed in other conditions also; but the hypnotic condition has offered special facilities for observation and experiment, because it can be produced at will, at any time, and with a great number of persons. The other conditions under which it presents itself are rare, occur naturally, and therefore admit only of hasty and imperfect examination.

CHAPTER II.

THE PHYSIOLOGY AND PSYCHOLOGY OF SUPERSENSUOUS PERCEPTION.

PHYSIOLOGY offers but an imperfect explanation of these phenomena. It attributes them, not unreasonably, to an excited state of the brain, consequent upon some diseased condition of the structure, by which its sensitiveness is increased to an extent that appears miraculous as compared with the limited action of the healthy brain. This argument is supported by reference to facts familiar to all, as, for instance, the painful effect of very slight sounds upon fever-patients, and in many nervous disorders. Each sense is undoubtedly capable of an excitement that largely multiplies its capacity, and if the cases of Supersensuous Perception had recorded nothing more than instances of extreme sensitiveness to external impressions, the physiological theory might be accepted as a complete solution of the problem.

In truth, but a fraction of the phenomena can be thus accounted for. Allot to hysteria, to fever, to nervous excitement, all the cases in which the senses could have been acted upon directly, there will be a residue of still more numerous cases that admit of no such explanation—cases in which the nerves of the senses could not have been acted upon—at least, according to any known physical law.

"Mental sympathy and communion" will explain many more of these cases. The motions of one brain

setting up like motions in another brain will account sufficiently for many of the recorded instances of supposed Supersensuous Perception. In such cases the patient has not perceived the object itself, but only the reflection of it, as it were, from the brain of the person *en rapport* with him. But after these also have been eliminated, there will be found a large number of well authenticated instances of perception of things beyond the utmost range of the senses, however exalted, and certainly not within the knowledge of any person present.

Such cases have been unfortunately classified with others partially resembling them, under the general name of *Clairvoyance*. But this, like so many of the terms used in mental and pneumatological science, implies an unproved cause and, therefore, is open to the grave objection, that it takes for granted a certain state of things which probably is not the true one. "Clairvoyance," or in plain English, "clear seeing," assumes that the phenomena so designated is an act of *vision;* that it is an abnormal exercise of the sense of *sight*. The unhappy consequence of this and similar terms implying foregone conclusions is that they provoke prejudices not afterwards easily removed. When the phenomena so termed are reported, it is contended, not unreasonably, that inasmuch as we know the mechanism of vision and the functions of the organ of sight, we know that the sense cannot extend so far or be exercised at all under the conditions stated in the alleged phenomena. These are, therefore, summarily rejected as delusions or frauds, instead of being investigated, with purpose to ascertain if there be any and what truth in them, and what their value and their sources,—as Science would have been done eagerly if the name had provoked no prejudices.

In this instance it will appear that the name has been too hastily given to the phenomena; that they are *not* abnormal operations of the sense of sight; that the objects are *not* seen by the organ of vision; that the

process is by a *mental* perception, obtained by some other medium than the eye; consequently that it is not "clear seeing" at all, nor are the bodily senses in any manner engaged in the process—that, in truth, it is a *super-sensuous* perception. Its sources and how it is exercised are not yet discovered—but the *proofs* of its existence are potent and abundant.

The existence of such a process of mental perception, not alone without the aid of the senses, but under conditions in which the senses would be impotent, is established by overwhelming evidence. No person who has carefully and extensively examined the phenomena of Somnambulism, whether natural or artificial, has failed to find multiplied proofs of it. The cases medically reported supply conclusive evidence that super-sensuous perception is naturally developed in *natural* Somnambulism. Very little experience of the phenomena exhibited in Artificial Somnambulism will satisfy the most incredulous that what is thus naturally exhibited in the one condition may be reproduced by art in the other condition. The physical or psychic causes of the phenomena are, it is true, undiscovered as yet. But so are the causes of many other facts in Science, which nevertheless are accepted as facts. After centuries of experiment we are wholly ignorant now, as ever, by what process the magnet lifts the steel; by what formative force our bodies are moulded; what life is; by what power a scratch is healed. We do not deny nor dispute other facts because we cannot explain them. The facts of Somnambulism are not in themselves one whit more wonderful nor more inexplicable than any other unexplained facts—only they are not daily presented to us for explanation.

Like all other asserted facts, they are questions of *evidence* alone. Three such volumes as this would not contain all its recorded cases. If every scientific observer of psychological phenomena were to report only his own experiences, the records of Super-sensuous Perception would fill a library. I have personally

witnessed many hundreds of instances, exhibited under the most careful tests, in the presence of the most competent observers. In this treatise, a few only have been presented, not for lack of matter, but for lack of space.

The explanatory theories have been many, but, although even the best of them are conjectural merely, they are of value as showing that the phenomena are *not* supernatural, but capable of being brought within the domain of science.

First, it is urged that they are not necessarily *super*-sensuous perceptions, but may be accounted for by abnormal exaltation of the senses, such as is sometimes seen in fever and other excited states of the brain and nerves.

The answer is decisive. The special perceptive power now under consideration is not merely an extension of the senses; it is found under conditions that preclude the exercise of the senses. The sense of hearing might conceivably be so excited as to recognise a footstep distant by a mile, the ear being practically converted into a microphone. The sense of sight might conceivably discern an object so far off or so small as to be imperceptible save by an abnormally sensitive nerve. But no such explanation will suffice for things perceived through opaque substances, or placed out of the line of vision, unless we can conceive of opaque substances being penetrable by some rays of light which, though imperceptible in the normal condition of the senses, are perceptible in some abnormal states of sensibility.

The recent discovery of the *microphone* may not improbably suggest a solution of this, as of some other problems in Psychology. That curious instrument proves the presence about us of innumerable waves of sound, so slight as to be inaudible to us. It reveals to the ear a new world, as the microscope has opened a new world to the eye. This revelation is another proof of the fact, so important to Psychological Science, that our senses are constructed to perceive only an infinitesimal portion

of the sights and sounds about us; that the invisible and inaudible world by which we are surrounded, and of whose very existence we have no knowledge, is infinitely more populous of forms, of sounds, of life, than the world which our senses reveal to us. Therefore, that it is mere folly and presumption to pass an *à priori* judgment and to pronounce of *anything* that it *cannot* be. Still more presumptuous is it to assert that molecular matter, which alone is perceptible by the senses, is all that exists in this world, remembering that those senses cannot perceive a thousandth part of that which we *know* to be, and that if our eyes had been microscopes and our ears microphones we should be actually *seeing* millions of things in that which now is solitude and *hearing* millions of sounds in that which now is silence.

Another theory has been advanced, having better claim to acceptance. The Mechanism of Man, it is contended, in its normal condition, permits of perception by the Conscious Self of external existence through the evidence of the *senses* alone, which are the mechanism specially constructed to receive impressions from the outside world and convey them through the nerves to the *consciousness*—whatever that may be. If vision be the sense so impressed, the conveyance of the impression made upon the recipient nerve is subject to certain restrictive conditions. Sight is conditioned upon the passing of rays of light from the object to the retina; and these rays are themselves subject to conditions, one of which is that they cannot pass through certain substances, which are therefore called opaque, as substances through which they *can pass* are called transparent. But light is not the only force in action about us. There is another force far more penetrating—the magnetic force—which permeates *all* molecular structure. If, therefore, an Intelligence can be conceived having a mechanism contrived to receive the impressions of the magnetic force, as the mechanism of Man is contrived to perceive the rays of light, to such a Being what we call "opacity" would not be. To

him all would be *transparent*. There would be no obstacle to his perception but diminution of size by distance, and it is problematical if even such an obstacle could impede a perception which would be almost boundless.

Psychology suggests, for as yet it is unable to prove, that in this may be sought the solution of the problem of Supersensuous Perception. May it not well be that the Conscious Self has, in certain abnormal states of the mechanism, capacity to obtain perceptions of external objects directly, or through some other medium than the mechanism of the body. For an instance. Isolated from the influence of the bodily senses and the conditions of their action (which is the actual condition in Somnambulism), may not the Conscious Self be enabled to exercise its own larger *percipient* powers somewhat as they may be expected to exist when that Self is wholly severed from the body? May it not conceivably —nay, probably—be enabled then to obtain perceptions of external objects by means of the waves of the magnetic or electric force, as in the normal condition of the mechanism it sees by perception of the waves of light? Again; is it not reasonably probable that in some conditions of the mechanism there may be perception of the waves of the ether (the senses can perceive only the waves of the atmosphere)? In either of such cases, to the Conscious Self there would be no opacity. Every substance would be transparent and no interposing molecular matter would suffice to prevent that perception. This *must* be the future condition of Soul, if there be a life hereafter. May not that power of independent perception be exercised more or less here, under certain abnormal conditions, when the mechanism is thrown out of gear and the Conscious Self is partially emancipated from the restraints and conditions imposed upon it by the needs of its present state of evolution?

Thus does another stage of our examination of the Mechanism of Man in action compel us to the same conclusion—that the MAN is not material, that is to say,

of molecular structure, merely; that the Conscious Self is a definite existing entity, distinct from the molecular structure, exhibiting its individuality and independence in a continuous series of extra-corporeal perceptions and expressions, presented in the familiar phenomena of dream, as in the other more rare abnormal conditions of delirium, insanity, somnambulism, catalepsy, mental sympathy and communion and super-sensuous perception? In all of these we find the common feature of a severance, more or less, of the Conscious Self from the influence of the senses, a loosening of the links that bind it to the material structure, with a temporary exercise of that independent action which may be reasonably looked for when the severance is completed by the dissolution of the molecular mechanism with which the Soul (or Self) is clothed for the purpose of existence in a molecular world.

BOOK VI.

THE ABNORMAL ACTION OF THE MECHANISM OF MAN.

TRANCE.

INTRODUCTION.

URSUING our examination of the Mechanism of Man, as hibited in its abnormal conditions, we preserve the ne scheme of inquiry. We advance from the familiar l frequent to the more rare of the phenomena, but ich, because they are infrequent and unfamiliar, are nessed with surprise or received with incredulity when orted. We proceed now to the next stage of that gressive development which is presented by the lition, part physiological, part psychical, known by the e of *Trance*.

am reluctantly compelled to employ this name in of a more accurate one, for it is open to much error use it carries with it different conceptions to different rs. It has been used from the earliest times to ate not one but many manifestations, which may rious phases of the same psychic condition, but

also may proceed from distinct sources. Trance is repeatedly referred to in the Holy Scriptures as a condition of whose existence no doubt is entertained, and history abounds in narratives, the descriptions of which bear a strong resemblance to much that now is exhibited by the affection so called. The reports of modern observers have this advantage, that the phenomena have been noted with greater care and accuracy. The reporters of recent cases are not enthusiasts, looking for signs from heaven, but calm, cool, experienced Scientists, deliberately inquiring after the truth. Among them are many Physicians, who have recorded in the medical journals the phenomena here noted in their patients, stating them simply as *facts*, without reference to any theory or creed, with single-minded purpose to add to the storehouse of positive knowledge.

The phenomena of Trance may, for the purposes of this treatise, be examined in two divisions.

The first is that form of it which in external appearance simulates death and is attended with total insensibility, but whether with mental unconsciousness is yet in dispute. The weight of evidence is certainly in favour of the unpleasant conclusion that the Mind, or more probably, the Soul (or Self) *is* conscious and percipient, while the nerve system is paralysed and the material structure insensible.

This condition of Trance, although in itself extremely interesting, throws but little light upon the Mechanism of Man. Attention will, therefore, be directed more particularly to the series of phenomena in which the opposite condition prevails and, in lieu of unconsciousness, we have a state of very extended consciousness, high exaltation of the mental powers, supersensuous perceptions of extraordinary range, and this psychic development accompanied by some physiological and psychic phenomena almost as strange and incredible, being contrary to our common experience, as are the telegraph, the phonograph, the microphone, and the other marvels of Science.

Trance has been often treated as being only a phase of Somnambulism. It is true that Trance is sometimes seen in the hypnotic state. But the evidence proves conclusively that they are not identical. Trance is the next stage of development *beyond* Somnambulism and a distinct and definite psychological condition.

The Trance known to readers is marked by its outward resemblance to death. The pulse fails, the heart's action ceases, or is imperceptible. Upon this state imagination has grafted the ghastly stories of burial of the living and awakening in the coffin.

That there may be apparent death and then revival is proved by drowning. The pulse and consciousness have ceased. But life has not really departed. It lingers somewhere in the mechanism—doubtless in the nerve-centres. The blood, not yet coagulated, is by artificial pressure forced again through the arteries, the heart is stimulated to renewed action and thus the entire mechanism is once more set in motion.

But the patients in these cases of seeming death are agreed that, during this suspension of the vital functions, there was no consciousness of existence. They had gone through the sensible process of death and found the act of death to be painless. Death is simply a cessation of consciousness.

Another form of this phase of Trance is that exhibited by patients, well known to medical science, and sometimes to the public, as instances of "fasting," continued for months and even for years;—not, be it observed, entire abstinence from *any* nourishment—for the air supplies to man, as to plants, a large quantity of liquid and some solids,—but food so rarely taken that the frame in healthy action would have perished long since from inanition. In this condition of Trance, either continuous or recurrent, the vital action is so reduced that the functions of waste as well as of repair are almost suspended. The condition is not found in Man alone. It is familiar to us in the instance of all the hybernating animals. The injustice of some judgments

in the criminal courts, consequent upon ignorance of the elementary laws of physiology and psychology, will ever be a blot upon the administration of justice and a shame to Science that sanctioned it.

Another familiar instance of this form of Trance is the burying of the Fakirs in the East and finding them alive after the lapse of many hours.

In the other condition of Trance, the phenomena are the opposite of those above described. Not only is there no suspension of the vital functions, but they are in an unwonted state of activity and the mental capacity is largely increased. Sacred as well as Profane History abounds in cases of this remarkable psychic condition. Sometimes it is termed inspiration, sometimes ecstacy. This, however, is not the condition itself but only one of many phenomena attendant upon the condition.

It is to this series of phenomena that the attention of the reader is particularly invited, because it throws much light upon Psychology, and solves some perplexing problems in relation to the action of the Mechanism of Man, constructed as it is of Body, Mind and Soul.

CHAPTER I.

THE PHENOMENA OF TRANCE.

TRANCE is not sleep, nor is it in any manner allied to sleep. It is a condition, physiological and psychical, that has no more resemblance to sleep and dream than has insanity, although the doctors still talk and write of it as being merely an abnormal form of sleep.

In sleep, the senses are sealed, the limbs relaxed, the Will is suspended, the body under very imperfect control of the mind. There is but partial self-consciousness. If there be dream, the activity of the mind is only exhibited by the body in fitful contractions of the muscles, in mutterings more or less distinct, and in *attempts* to act rather than in positive action.

Otherwise it is with the condition of Trance. The patient lapses into it gradually. The first symptom is a peculiar expression of the eyes, difficult to describe but easily to be recognised when once it has been seen. This is followed by equally remarkable convulsive motions of the limbs, which vary in intensity, from a shudder-like trembling to positive convulsion, that continues for an uncertain time. Such are the external appearances that attend the coming on of *Trance*.

The convulsive paroxysm is succeeded by apparent insensibility. Breathing is difficult and irregular and the features wear an expression as of pain. But the patients unanimously declare that this appearance is deceitful and that they experience no sense of pain.

By degrees these symptoms subside. The breathing becomes natural, the convulsive twitching and shuddering cease, the features are calm and composed, the aspect is as of one in a tranquil sleep.

From this condition the patient speedily bestirs himself. He then assumes precisely the aspect of a Somnambule. The eyes remain firmly closed. He walks and talks. But his step is not that of waking consciousness. It is a peculiar gliding motion, impossible to paint by words. The voice is changed, the utterance is slower, the speech is in another tone, sometimes sinking almost to a whisper. It is difficult to recognise in the patient the most familiar voice.

The sense of sight is sealed. Yet does the patient plainly *perceive* all the objects about him. He threads his way through a crowd of intervening obstacles to another part of the room and neither touches nor trips over any of them. He will take a book, open it and read it correctly. He will seize a pen and write. He recognises every person in the company and addresses himself to each in turn. All this he does as perfectly and readily in the dark as in the light, and even with wads of wool, or sticking plaister or handkerchiefs bound over the eyes, proving conclusively that he is guided by some other perceptive faculty than the sense of sight, or at least that the sense nerve, or the brain, or the Soul, (or whatsoever is the intelligent recipient of the messages of the external senses), is impressed and informed by some other process than through the mechanism of the eye and the nerves of vision. Indeed, the mind appears to be acting without the assistance of the material mechanism and in entire independence of it.

In this state, the extremities are usually cold and the head is hot. The pulse is regular, rather full, but not perceptibly accelerated.

The mental condition of the patient is remarkable. His talk rarely has reference to the place, persons, or objects about him. He is obviously engrossed in that which has been called "a vision." A picture is in his

mind and his attention is fixed upon it. A succession of connected scenes is present to his fancy, of which indications are given by actions or by words and sometimes by both words and actions combined. He has lost all consciousness of his own personal identity. He is not himself. He conceives himself to be some other person and he commonly acts the character of that other person with marvellous fidelity.

Herein is to be observed a marked difference between *Trance* and *Dream*. In dream, we never lose the sense of our own identity. We never believe *ourselves* to be some other person. However impossible and absurd the actions we *suppose* in our dreams that we do, and at the time of dream verily believe we are doing, we never dream that we who do them are not ourselves. Another difference between the two conditions is, that in *Sleep* we merely act the dream in our minds—the *body* does *not* act it. If, prompted by the mind, there is an effort to act, it is extremely partial and attended with a painful sense of incapacity. In *Trance*, on the contrary, the body acts in accordance with the mental vision and obeys the command of the mind. A third difference is, that in sleep the dream is stuffed with incongruities and absurdities; in Trance the vision is coherent, although often extravagant. In Trance, the mind is manifestly in a high state of excitement and its faculties in a condition of exaltation and ecstacy, whence visions that soar beyond the largest conceptions of the mind in its normal state. But the vision of Trance is not absurd nor incongruous, like the vision of sleep. Granting that such a state of things *could* be, the dream of Trance is ordered precisely as reason and experience tell us it *would* be if it were real.

It is to this phenomenon of Trance that we must assign the utterances that have been mistaken in all countries at all times for revelations from the Divinity or communications from a spirit world. The condition itself is not new. It must have existed ever since Man attained to his present mental and bodily structure. Whether it be a survival of a past condition or the introduction to a

new one, is a question for Darwinians to determine. Psychology is concerned with it only as *a fact* of immense value as revealing to us the relative conditions of mind and body to change in which the manifestations of Trance are due. Listening to thoughts more profound than it was deemed possible for the patient to have acquired, expressed in language more eloquent than he was ever known to have uttered in his waking hours, viewing the consummate skill with which he acts the part of some great personage whom he sees in his mental vision, spectators, not accustomed to trace phenomena to their causes, are as ready to exclaim now, as ever and everywhere, "Behold, a prophet!" "An angel preaches through him!" "A devil has possession of him!" according to their several prejudices. In *truth* these visions, that seem supernatural, are nothing more than productions of the mind; the utterances and the actions are but the acting of a dream. *We* also dream nightly that we talk as wisely and as eloquently as the patient talks in the ecstacy of Trance; *we* behold visions as heavenly or as hellish; only these dreams of *ours* perish in the cradle of the mind where they were born and, not being seen of others, pass away into the limbo of vanities and are forgotten. If *we* could act and utter *our* dreams of sleep as the patient in Trance enacts *his* visions, we too should appear to others, if not to ourselves, as being gifted with divine inspiration and possessed by holy or unholy Spirits!

But the condition of Trance is not the less interesting as a Psychological study because it is thus reduced from a supernatural to a purely natural condition,—from a divine afflatus to a mere mental excitation. Enough remains to provoke curiosity and stimulate inquiry. Trance is a remarkable physiological fact and full of instruction to Psychologists. Although bearing a very marked resemblance to Somnambulism, especially in the external aspect of the patient, it presents also distinct differences that show it to be a different condition.

When the patient in Hypnotism loses consciousness, his brain, no longer under the control of his Will, may be controlled by the Will of any mind that chances to be in immediate communication with it. In Trance, although consciousness is entirely suspended, the mind is *not* subject to the control of another mind. On the contrary, it is for the most part in a state of intense activity, apparently under the command of the Will and acting in all respects as rationally as in its normal conscious state. In Trance, as in Hypnotism, the mental faculties are usually stimulated to great exaltation and the emotions to ecstacy. Not merely the imagination, but the reasoning power, and especially the language in which these are expressed, is often vastly in advance of the capacity shewn by the patient in his normal state. When restored to consciousness, the flow of ideas and words suddenly ceases and he who, five minutes before, had been discoursing fluently and eloquently upon themes that have exercised the profoundest thoughts of Philosophers, is seen suddenly to lapse into his former self and to be as dull, as ignorant, and as incapable to frame an argument or construct an apt sentence, as he had been always before.

Another peculiarity of Trance is the marked tendency of the patient to dream that he is some other person than himself and to act the character he has thus mentally assumed. In this also is to be noted a distinction between Trance and Dream. In the latter, the patient never loses his own identity. As we have seen, he accepts as actually existing almost anything his busy fancy may suggest. He believes that he sees and does the most impossible things. But it is always *himself* who so perceives and acts. Never for a moment does the dreamer think that he is *somebody other than himself.* It is not so in Trance. There the most frequent condition of the patient is the suspension, not of consciousness alone, but also of *the sense of his own identity.* He believes that he is not himself but some other person, and so believing he acts

to perfection the character of the person he thinks himself to be. In this state he talks of his actual self as distinct from his assumed character; and not merely does he talk *of* himself, but he talks *to* himself. If, for instance, the patient is called William Smith, and he falls into Trance and then believes that he is Thomas Jones, he acts the character of Thomas Jones with infinite ability, even to the tenor of his thoughts and the peculiarities of his gait and gesture; the ideal Jones will address the real Smith as a stranger and hold discourse with him rationally and cleverly, as if he was in no manner connected with himself.

It is further to be noted that, having once assumed a character during the state of Trance, there is a strong tendency in the patient to repeat that character when the Trance condition recurs. Then, as in Somnambulism, the memory of the former state of Trance returns and the Trance life, however often interrupted, forms in fact a kind of continuous existence, quite distinct in conception and memory, as well as in act, from the memories of his waking life.

As the falling into Trance is accompanied by more or less of convulsive action of the whole body, so is revival from it marked by similar convulsions. The condition is evidently attended with great excitement of the nervous system and is followed by much prostration.

There appears to be a condition of semi-Trance which often passes into complete Trance. In this state, the patient describes himself as having consciousness of what is passing about him, but dimly, as a dream appears. To the spectator he has the aspect of perfect wakefulness—converses easily and answers sensibly and often preserves his memory of occurrences during the condition. But some of the phenomena that attend complete Trance are exhibited in semi-Trance. Probably the latter is only an early stage of the affection. Little, however, is as yet certainly known of it and it appears not to have attracted the attention of the Medical Writers who have treated of Trance.

There is a phase of Trance rare, let us hope, of occurrence, which I have preferred to examine apart from those more familiar to us. In the conditions we have been considering, although there is *unconsciousness*, there is not *insensibility*. The functions of brain and body are performed, only the patient has no knowledge of and exercises no control over them. But, in the condition of Trance now to be noticed, the functions of the brain appear to be wholly suspended, and in extreme cases the functions of the entire nervous system also, so that there is the seeming of death, although it is not death, but only a suspension of the functions of life.

The first stage is seen in the many cases reported in the medical records of all times and countries of persons who have fallen into a state of partially-suspended animation—the breathing slow and slight—the action of heart and pulse scarcely perceptible—the eyes closed—the limbs motionless—the desire and the capacity for taking food extinct. The duration of the paroxysm varies considerably. It may be for an hour. It has been known to extend to weeks, months, and with very brief intervals, even to years. This condition is not peculiar to Man. It is found in all the hybernating animals, who are really in the state of Trance, and from them we learn that the effect of a partial suspension of the functions of the Nerve system is so to diminish the waste of the material of which the body is constructed that life may be continued, with an almost infinitesimal supply of food, for very considerable periods of time. All the reported cases of lengthened fastings are of persons in a state of Trance, whose bodily functions had been in abeyance by reason of the almost entire suspension of the functions of the nerve system, and in whom, therefore, there was little waste of the material required for the support of active life. These persons undergo, in fact, the process of hybernation. The assertion that such fasts are impossible, so freely made during some recent trials, betray an ignorance, of Physiology and Natural History alike, which it would be difficult to attribute to Professors of

Medical Science, were it not painfully proved by daily experience.

There is yet another condition of Trance, in which there is a *total* cessation of the functions of life. In using this term I must be understood to intend only an *apparent* total cessation. There is no perceptible *sign* of life. The heart is still—no pulse strikes the finger—the mirror betrays no breath. All the conditions of death are present, except death itself. It is, in fact, a suspension, not of *life*, as some have thought, but of vital action. Doubtless some portion of the nerve structure is performing its functions, however feebly, or there would be actual death. But the Trance-life is probably limited to some one nerve centre and the cessation of the functions is probably due to a cessation of the flow of the vital force from the nerve centres through the nerve system, thus suspending the functions of all the organs sustained by the nerve force.

This Trance condition, so resembling death, it is much to be feared has sometimes been mistaken for death. On the Continent, where the law compels speedy interment, there can be little doubt that many more persons are buried before life is actually extinct than even romance has conjectured. But the pictured horrors of resuscitation in the coffin and the tales of changed position and even of positive escapes are happily impossible. Returning vitality would be extinguished for lack of air before mental consciousness could be restored.

There is but one doubt, and it is the most horrible of all. *Can* it be that intellectual life and consciousness continue after the suspension of the bodily functions, so that the mind may perceive all that is passing, take cognizance of the grief of friends, the preparations for the funeral, the enshrouding, the screwing down of the coffin lid, while unable to express its emotions by means of the bodily organs? At the first view it may appear that, Trance being the severance of the communication between the Self and the body through the ordinary

channels, consciousness of the external world may continue to the Self while the material bodily organs are insensible. But when we reflect what the condition of Trance is—that the brain, as the organ through which that communication is maintained, is also severed from the Self, the probabilities are that there is no such consciousness.

It is quite another question whether the Self can, in such a condition, obtain perceptions by some other medium than the material organs that are paralysed, and if in the condition of Trance it possesses any of the powers which it enjoys when, instead of a partial severance by Trance, it is wholly severed by death. Upon that there is diversity of opinion and more evidence than has yet been collected is required to justify any scientific conclusions.

Another remarkable phenomenon has been found occasionally to attend upon Trance, for which I must confess myself wholly unable even to suggest a scientific explanation. The patient in Trance is usually *impervious to heat*. I have witnessed this phenomenon so often, and subjected to such strict tests, as to satisfy me that it is the fact,—strange as it appears. One instance will suffice as an illustration, for all have an exact resemblance. I have seen a patient in Trance, in my own drawing room, go to the grate, where the fire was burning at a white heat, open the glowing mass deliberately with both his hands, take out with his fingers from the midst a coal as large as a breakfast cup at a white heat and carry it in his hands until it was cold. While doing so, paper placed against the coal was instantly inflamed and consumed. My conjecture being that, as heat ascended, the bottom of the coal did not transmit its heat to the hand on which it rested, another piece of paper was placed between the coal and the hand, and was at once burned. I requested that the coal might be transferred to my own hand; but I was compelled to drop it instantly, not escaping a severe burn, the mark of which I bear now. That coal was then received by the patient from me and carried in both his hands with the

same insensibility as before. To place the experiment beyond doubt, the coal, when red hot, was held between the two hands of the patient; a paper thrust between his fingers was at once inflamed. To complete the test, the glowing coal was placed upon the head of the patient. Not a hair was singed, while the paper was consumed instantly. Nor was this an experiment of a few seconds, like the exhibitions of the jugglers, or the familiar chemical appliances by which heat is for a short time resisted. The burning coal was sustained for nearly twenty minutes, until, indeed, it was cold. This was not an isolated experiment. It has been tried by myself and others often and in various forms. The description given by all the patients is that the glowing coal, or burning candle, or hot iron, imparts no sense of heat to them. I have seen the finger held for a considerable time in the flame of a gas lamp, with the like impunity. Upon recovering from the condition of Trance, this power of resistance to heat is lost and the flesh of the patient is as sensitive to heat and as readily burned as that of other persons.

Careful observation and experiment have, however, ascertained this—that it is not, as supposed, merely an *insensibility to pain*. The Trance condition, like that of Somnambulism, is attended with such insensibility; but the experiment in question has this speciality, that *the body is not burned*. No known chemical preparation can enable the skin to resist the application of heat beyond a very limited time. Although a patient might be made insensible to the *pain* of a burn, the substance of the flesh cannot be shielded from injury, the small hairs that cover the skin are scorched, and the skin itself can withstand, but for a very brief period, a consuming heat. The Somnambule does not feel *pain* from the touch of red-hot iron; but it burns the flesh and produces a wound, from which, when sensibility is restored, he suffers anguish equally with others. Not a trace of *the action of heat* was to be found upon the patient in Trance who had carried a red-hot coal for

a quarter of an hour. There was no singeing of the hair amid which the fire was thrust and the skin had neither the appearance nor the slightest smell of being scorched, although a blister had been instantly raised upon my own finger. And so it was with all the patients in whom this phenomena was found.

The condition, therefore, is not that of *endurance* of heat, but of *resistance to the waves of heat*, which are in some as yet unknown manner repelled by the body in the state of Trance. Heat, entering with sufficient force, separates the molecules of which the body is constructed, destroying their then combination, and dissipating the particular substance to which it is applied, but it does not destroy one atom of the mass. Change of *form* alone is thus effected. Resistance to this effect of heatwaves can *only* be by the interposition of some non-conductor that will not transmit them. What *is* the non-conductor that in Trance is imposed between the burning coal and the body of the patient, repelling or refusing to transmit the waves of heat which, if they were to enter the body, would speedily rend its molecules asunder, dissipate the substances builded of them and destroy the organic structure?

I venture a suggestion. May not this non-conductor of heat be the *Psychic* (or Soul) *Force* which, imponderable, non-molecular and therefore non-material, in the normal state of the relationship between the Soul (or Self) and the body, operates only through the medium of the body, but in the dislocation of that normal relationship, which constitutes the condition of Trance, passes beyond the body and surrounds it with a resisting envelope that will not transmit to the structure the waves of heat? Or is it Dr. RICHARDSON'S nerve-aura abnormally extended in this state of Trance?

There is nothing in this phenomenon analogous to the exhibition of fire-handling by experts, or endurance of the ordeal by fire in the middle ages. The chemicals used in such cases operate but for a very brief period of time. The resistance of the non-conductor

is speedily overcome by the fire, and in less than a minute the destructive force of heat will penetrate and dissipate the structure. The long-continued resistance to heat exhibited in Trance proves that the result is brought about by some very different process. It is not that the fire is unfelt or does not consume. It can only be that the waves of heat are repelled by some unknown force greater than their own and therefore *do not enter the body at all.*

There are other phenomena of Trance, exhibited also in Somnambulism, and which being already described I do not here repeat.

CHAPTER II.

THE PHYSIOLOGY AND PSYCHOLOGY OF TRANCE.

WHAT is the process, physiological and psychological, by which the condition of Trance is brought about?

Trance is always *self-induced*. Although not identical with Somnambulism, there is a marked resemblance in the aspect of the patients, and so many of the phenomena are alike in both that by hasty observers they are often confused. Trance is, indeed, a frequent consequence of Somnambulism. The Somnambule sometimes passes into the state of Trance; but not at the Will of the operator. There is, moreover, a marked difference in the expression of the patient, difficult to describe in words but immediately perceptible to the experienced. In Somnambulism, the features are singularly impassive and have a strange aspect of stupidity, until the mind of the patient is set in motion by the operator. In Trance, the features glow with an unusual intelligence; the entire expression is that of one having powerful emotions combined with active intellect, insomuch that it is difficult to recognise in the face thus fraught with the language of *Mind* the inexpressive, unintelligent countenance that was presented by the patient, in his normal state, not ten minutes before.

The differences between Trance and Somnambulism are important, as throwing some light upon their relative psychological conditions.

Hypnotism is very rarely induced without the suggestion of an operator and the assent of the patient. The condition of Trance cannot be induced by any suggestion. It occurs suddenly, without the Will or desire of the patient, and without any premonitory indications save a convulsive shuddering, of uncertain duration.

In Hypnotism, the Will of the patient is paralysed and his mental mechanism is set in motion only by the Will of some other person *en rapport* with him.

In Trance, the Will of the patient is uncommonly active and no foreign Will has any control or influence whatever over the mind of the patient.

From this we learn that in Trance, however caused, the brain is thrown into a much more active state than before and, as the consequence, that its powers are very largely extended.

Accompanying this exaltation of brain power is the same condition of *unconsciousness* as is found in Somnambulism. When the patient revives, he has no memory of anything that occurred during the Trance; but the memory of the incidents of the Trance recurs when the condition is reproduced. The patient has practically two lives—the *Trance Life* and the *Waking Life*.

Hence we further learn that, in the state of Trance, there is what appears to be a temporary severance of the link (whatever it be) that connects the Conscious Self with the body. Certainly there is an interruption of the communication between the brain and the Self, to such an extent that the brain ceases to perform its proper function of imparting its impressions to, or exciting thought and emotion in, the Conscious Self, whichsoever of these processes be that by which the communication of the Self with the external world is conducted through the mechanism of the brain.

In this condition of severance between the action of the mechanism of the brain and the Conscious Self, some remarkable phenomena present themselves.

The senses are sealed as in Somnambulism. There is no perception by the sight, for the eyes are closed.

No sound startles. There is insensibility to pain. But the *mind* has not lost its power of perception, only it perceives otherwise than by the intervention of the senses. Although the eyes of the patient are closed, he will thread his way, without tripping or touching, through a room thickly strewn with furniture and unfamiliar to him. Plainly this is not effected by means of light passing through the eyelids, as some have supposed, for he does the like in the darkest room, where the waking occupants stumble at every step. In this, as well as in delicate mechanical actions,—writing, drawing, and such like,—he works in the dark as readily as in the light. So far, Trance precisely resembles Somnambulism.

But the Trance patient does what the Somnambule does not. He needs no person to be *en rapport* with him; his mind is not and cannot be controlled by any stronger Will. He maintains a conversation, answering questions with astonishing ability and in language such as he cannot command in his waking state. Often he will argue with scholastic skill, treating with ease and accuracy subjects of profound thought, far beyond the range of his waking intelligence. I have heard an uneducated barman, when in a state of Trance, maintain a dialogue with a party of philosophers on "reason and foreknowledge, Will and fate," and hold his own against them. I have put to him the most difficult questions in Psychology and received answers, always thoughtful, often full of wisdom, and invariably conveyed in choice and eloquent language. Nevertheless, in a quarter of an hour afterwards, when wakened from the Trance, he was unable to answer the simplest query on a philosophical subject and was not merely inapt at the language of science he had been lately using so glibly, but at a loss for sufficient language in which to express a commonplace idea.

From this it may be gathered that in Trance the brain is in a state of great *excitement;* that is to say, it works with vastly more vigour than in its normal

condition. We are still as ignorant how this condition is produced as we are of so many others of the functions of animal life. It is not, however, altogether new and strange, for a similar extension of the mental powers, only in lesser degree, is exhibited under the influence of spirituous liquors, of fever, and of some forms of insanity. The physiological process is obviously an increased flow of the force that sets the molecules of the brain in motion. As yet, however, we have failed to trace the process by which the state of Trance operates to increase the force, whatever it be, that moves the mechanism of the mind.

The condition of Trance appears to consist in the temporary severance of the connection between the Individual Being—or, as I prefer to call it, the *Soul*—and the molecular mechanism through which that Soul (or Self)—communicates with the molecular world. It is as if the machinery of the body were set in motion and its actions controlled by its own mechanism, without the guidance of the Will. The process may be compared to a carpet-weaving machine set in motion during the absence of the weaver. The machine would work out the pattern on the weft, but, that pattern exhausted, it could produce no more. In Trance, *the body* lives and acts according to the structure of its mechanism. But *the Self*, that directed its action in the normal state, has lost the reins; it has ceased to receive the communications which it was the province of the material structure to bring to it. If this condition were to continue, death would ensue. But in the Trance with which we are familiar, the connection between the Self and the mechanism is restored and their normal relationship resumed after an interval so brief that no harm comes of their partial dislocation.

The conclusions at which we have thus arrived may be briefly stated:

1. Trance is a condition distinct from Somnambulism, although the patient often passes from Somnambulism into Trance.

2. In Somnambulism, the control of the Will over the brain is suspended, and the brain is set in motion by any other Will that comes into a certain relationship to it. The manner in which this is accomplished is not known; but the condition is expressed by the French Scientists as that of being *en rapport* with the patient—a convenient term for which we have no English equivalent.

3. In Trance, the control of the *Will* over the brain is not lost nor apparently impaired. But there is a severance between the brain and that *something*, whatever it is, which we recognise as being *ourselves*, which possesses a consciousness of identity and of individual being, and which is here called the SOUL or Self. In Trance, the patient loses the consciousness of his own identity, has no memory of his then existence, becomes in his own contemplation some other person and sustains the character of that person with a skill far surpassing the ordinary intellectual capacity exhibited in his normal condition.

4. In Trance, other remarkable phenomena are witnessed, such as extraordinary exaltation of all the mental faculties, perceptions obtained through some other medium than the senses, ecstacy, insensibility to bodily pain and a capacity to resist the force of the waves of heat.

5. These phenomena appear to be due to some irregularity either in the production or the diffusion of the Nerve Force, or Psychic Force. Diverted from its regular channels, the force flows irregularly, and while some parts of the Mechanism are almost entirely deprived of it, to other parts it appears to stream in excess, especially to the brain, producing an abnormal development of the Mental Faculties.

6. A result of this irregular flow of the Nerve Force, or Psychic Force, and its consequent partial absorption by the structure, is that the stream of the force appears to overflow, as it were, and to be projected beyond the extremities of the nerves at the surface of the body for a circumference not yet measured nor determined.

7. It is conjectured that *this* may be the Force which, surrounding the body of the patient in Trance, protects it from the destructive impact of the force of Heat, *which operates only to dissipate molecular structure.* Hence the insensibility and resistance to heat which are exhibited in this remarkable condition of the human Mechanism. Heat would be harmless to the non-molecular structure, and the Soul or Self, if it exist, must be constructed of some other combination of atoms than that which forms molecular structure.

Such are the suggestions of Science. The Spiritualists offer a different solution. They contend that the phenomena of Trance are produced by spirit action. The Soul, they say, is partially severed from the body of the patient. Hence the insensibility to pain, the loss of consciousness, and the absence of memory. In this state some other spirit takes possession of the body that has been vacated by its own spirit and controls the material structure, supplying to it Intelligence and Will, thus manifesting itself to the material world through the organs of the borrowed body. They assert that the utterances are those of the possessing spirit, but, being made through the mechanism of the patient, they are moulded according to the instrument through which they are expressed. Hence the contradictions exhibited. Hence the knowledge by the patient at once of so much and so little. The resistance to heat they attribute to the direct interference of the foreign spirit, who diverts the waves of heat from the patient by interposing a non-material something which deflects the heat rays, or through which they cannot penetrate.

As I have had occasion to remark already, the introduction of spirit agency would account for these as, indeed, it would account for all other facts in Nature and supersede Science and scientific investigation. But I submit that we are bound to exhaust every possible explanation by known natural causes before we assent to the introduction of supernatural powers whose very existence is unproved. At all events, I offer the

suggestion of a possible Psychological solution to the Reader, who will determine for himself if he prefers my theory to that of the Spiritualists, as being the more reasonable hypothesis accounting for the undoubted phenomena.

BOOK VII.

THE ABNORMAL ACTION OF THE MECHANISM OF MAN.

PSYCHISM.

INTRODUCTION.

We have traced the gradual evolution of the phenomena exhibited in the abnormal states of the Mechanism of Man from the familiar condition of Dream, through successive development in Delirium, Insanity, and Somnambulism, whether naturally occurring or induced by art. These are conditions now recognised by medical Science. Supersensuous Perception is still in debate, many of the facts being admitted but assigned by some to an abnormal exaltation of the senses and consequent extension of their perceptive power—preferring this to an explanation that involves the admission of some process of perception other than that of the senses.

The Reader, who has so far followed attentively this order of succession in the phenomena, cannot fail to have noticed that, although classified in separate groups, because produced under different conditions, part of

each group is not distinct and isolated, but a remarkable series of progressive stages of development of what is substantially one psychical condition. The more closely the phenomena are examined the more obvious is this relationship between them. The conclusions of the most experienced, the most observant, and the most thoughtful inquirers tend more and more to this—that the phenomena are intimately allied, that they proceed from the same sources, whether they be the marvellous phenomena experienced by all of us nightly in dream or the no less marvellous phenomena exhibited in Somnambulism and Hypnotism.

The *psychical* condition that appears to be the cause of, as it is certainly attendant upon, all the phenomena we have hitherto examined, may be described as a temporary dislocation of the mechanism, by reason of which the molecular structure is severed more or less from the force by which, in the normal state of that mechanism, it is moved and intelligently directed. That intelligent motive force, whose existence is undisputed, is here suggested as proceeding from the entity in the Mechanism of Man we have ventured to term "the Conscious Self," meaning by that term the I—the YOU—be it Soul, as contended by us, or be it merely a state of the material mechanism, as the Materialists contend. But it must be remembered that none of these questions as to their sources or causes affect in the slightest the facts and *phenomena* observed and reported. Our conjecture of cause may be erroneous, but the facts remain. They are not shaken in any degree by showing that the explanation of them is insufficient. Some may assign them to one cause, some to another cause, and hereafter we shall submit our own views upon this question. For the present, and at this stage of the inquiry into the Mechanism of Man, the attention of the Reader must be given to the *facts* alone—because facts only can be accepted as a sound basis for scientific argument and induction.

Note also that the most ardent Materialist, the most

enthusiastic opponent of Soul—does not venture to deny the phenomena of dream, of delirium, of insanity, of natural somnambulism. Perhaps he would dispute some of those exhibited in hypnotism (which is only somnambulism artificially induced), and he would probably contend that an abnormal exaltation of the senses will account for the undeniable instances of what has been here termed Supersensuous Perception.

But he will certainly deny with angry vehemence the entire of the phenomena of Psychism; even of such of them as are identical with the phenomena which he admits to be exhibited in those other undisputed abnormal conditions.

This would indeed be an important element in the controversy, but for the amusing fact that not long since the phenomena now advanced as explanatory of the new developments, were opposed and denied with the same anger, the same vehemence, the same denunciation of the patients as impostors and of the inquirers as fools or rogues, by the very persons and classes who now accept them as real and wield them as explaining the facts they now dispute.

Nevertheless the *evidence* that proves the existence of Psychism, as a physiological and psychological condition of the Mechanism of Man, vastly exceeds in quantity that which is accepted as proof of the phenomena of Somnambulism, and is at least of equal weight and worth and attested by as many competent and trustworthy witnesses.

The first step in the present inquiry will be to produce some of that evidence and then, having before us a full description of the phenomena, and the conditions under which they are exhibited, we may venture an endeavour to trace their Physiology and Psychology, and thence what, if any, revelations they make to us of the true Mechanism of Man, of his capacities in the present and probable prospects in the future.

But no scientific investigation can be properly conducted without a distinct understanding between Writer and Reader as to the precise sense in which certain of

the terms employed are to be understood. Half the controversies that have wasted time and thought would have been spared, if the combatants had first stated clearly with what meaning they desire certain words to be read.

Let the Reader, then, of these pages clearly comprehend the sense in which the term "Psychism" is here employed. The definition is somewhat long, but the precise import of the term requires to be distinctly understood, even by those who may dissent from the facts on which it is based or the conclusions drawn from those facts.

The material—that is, the molecular—part of the Mechanisn of Man is inert. It is not moved and kept in motion by any force from without. Its motions are sustained by some force produced within the structure, that causes the merely vital action. When that force ceases to be generated, the mechanism itself ceases and its substance perishes.

This force is what we call the *vital force.*

It is the attendant upon and expression of *Life,* and its presence distinguishes organic structure from inorganic structure. It is a blind, unintelligent, uncontrolled force. It is not subject to the Will. It labours always, sleeping or waking, and is found alike in the sage and in the idiot. It radiates from the nerve centres. But what it is, how generated, or what becomes of it when vitality ceases, Science has sought in vain to discover.

But there is exhibited in the "Mechanism of Man" another force, also produced within that mechanism, which directs and controls the action of that mechanism. This force is distinguished from the vital force, and from all other known forces, in that, if not directly proceeding from *the* Intelligence, it is certainly controlled and directed by Intelligence and commanded by the *Will.* This force determines the actions of the mechanism to definite ends, and is launched or withdrawn at the pleasure—*of what?*

Surely not of the mechanism itself that is so commanded? Is it not a more reasonable conclusion that this controlling and directing force is something other than the machine that it commands?

But for our present purpose it matters not what is the fountain of this force—whether it be the brain, or the nerve system, or a non-molecular Soul. It is with the force alone that we are now concerned.

This force is *not* the vital force. It does not move the heart nor set the stomach digesting. It is a special force, definite and distinct in its character, moving various parts of the machine to various actions, for various ends desired and sought by *something within the machine that possesses intelligence.*

To that force no name has yet been given by Science. Indeed, its very existence is denied by many eminent Scientists, and but imperfectly recognised by those who hesitatingly accept it, as if they feared to be deemed fools for accepting as true anything that seems to point, however remotely, to the conclusion that there is a Soul in Man and a God in the Universe.

That, however, is the force to be treated of here. Some name is needed for it. I have ventured to suggest "PSYCHIC FORCE" as an appropriate name. It means *Soul* force. It was adopted to distinguish it from the *vital* force, which appears to be a purely bodily force. At least it is not an intelligent force, nor directed by Intelligence.

When, therefore, the term "Psychic Force" is used in this book, it must be understood to mean *the force that is directed by some intelligent power, existing in the Mechanism of Man, by which the actions of that mechanism are controlled and directed to desired and definite ends.*

But it must also be distinctly understood that the term "Psychic Force" is not being intended to *affirm* anything as to the origin or nature of this force. That is a question to be determined after patient and protracted examination of the phenomena, in the production of

which, after sufficient experiment and test, this Psychic Force may be found to be concerned.

Let it be understood, also, that when it is called an *intelligent* force, it is not intended to affirm that it is itself intelligent, but only that it is directed by *some intelligent entity*. Certainly it is not directed by either of the known physical forces. All tests have failed to show the slightest connection with either of the triune forces of magnetism, electricity, or galvanism.

Probably the existence of such a force will not be seriously disputed by any rational person. He could not lift his arm to his head without recognising its presence. He *wills* and his arm rises.

At this point the Materialists part from us, and most of those who have not experimented upon this force, or thought out to their reasonable conclusions the necessary results of its existence, will say, as many now say, "admitting that there is a Psychic Force that controls the body, is there any evidence that this force can, under any circumstances, operate beyond the limits of the bodily structure?"

It is answered, that an extensive series of phenomena, apparently associated with this Psychic Force, seems almost to compel the conclusion that, under certain conditions, it can and does operate beyond the surface of the body in which it is generated.

If such extra-corporeal action be, it is, in seeming, "action at a distance." Thus is raised one of the most perplexing problems of science. Is such action *possible?* We cannot even imagine motion to be imparted to matter in any form but by some *force* applied to it. Force itself is motion, and can be conceived of only as motion. Something must communicate the motion from the moving power to the subject. The magnet *appears* to attract the steel by "action at a distance." But physicists contend that this cannot be; that *something* must intervene by which the steel is seized and carried to the magnet. Whatever this may be, it is imperceptible to any sense. But we do not deny its existence because it is

not perceived by our senses. So likewise it is unphilosophical to deny *the fact* of motion under the influence of Psychic Force because we cannot immediately trace the manner of its action or the medium through which it acts.

It must not be concealed from the reader that a numerous and in many respects influential body of experimentalists, recognising the fact of motion without perceptible contact or communication, and unable to trace any physical cause for it, have attributed such motion to the presence and activity of disembodied spirits of the dead!

If this solution of the problem of motion without perceptible physical contact could be demonstrated by conclusive evidence, it would be impossible to exaggerate its importance, for it would establish beyond further question two facts of the utmost interest to Man—the existence of Soul and life after death. It would be demonstrative proof that the Mechanism of Man is compounded of Soul as well as body; that, as here contended, we are Souls clothed with bodies.

Greatly as all must desire to find such proof sufficient, I am compelled, after long and careful examination, to declare it to be insufficient. The proofs that Soul is are many and potent, as the Reader must be already satisfied. But *this* evidence, that would have been worth all the rest, cannot be judicially accepted as being positive proof of the great fact so confidently asserted by many from whose judgment I reluctantly dissent.

There is, indeed, abundant proof of the presence and action of Intelligence, as being intimately associated with the class of psychic phenomena about to be examined. But some of the most intelligent investigators have failed to find evidence, convincing to them, of the presence and agency of spirits of the dead, although they have examined with the most anxious desire to find them.

For my own part, I must frankly say that, after long and patient examination, with all desire and pre-

possession in its favour, I also have failed to find the hoped for proof.

But of many of the *facts* and *phenomena* I can entertain *no doubt;* the question is only as to source and cause and the agency by which they are produced. No Physical Science can array a tithe of the mass of evidence by which Psychism is supported. The reporters of the vast multitude of its facts and phenomena are for the most part competent observers, having various qualifications for the work—Scientists, Physicians, Lawyers. The phenomena of Psychism have been experimented upon, tested, and noted by more skilled investigators than the phenomena of magnetism. They are attested by men of scientific eminence, whose authority in other sciences is received with unquestioning respect. Fifty such volumes as this would not contain all the cases that have been so recorded. Half a million of witnesses attest, not to mere matters of *faith,* but to positive testimony of their senses—what they have *seen, heard,* and *felt.*

But this huge mass of evidence, which in any other science would be deemed to be conclusive, is nevertheless confronted by a peremptory denial of each and all of the reported phenomena and confident assertion that they were either delusions or impostures.

By whom are they denied? And on what ground is the denial based?

Who are the deniers? Men who have seen and heard and failed to find? No! Strange to say, they are men who have *never seen,* who have not patiently examined. Such witnesses would be inadmissible before any tribunal, for any purpose. What would be said by Scientists if a man, who had never witnessed an experiment and who knew nothing of the science of magnetism, should set himself to refute it by simply denying its asserted facts? Would he not be ridiculed by the whole world?

The term *Psychic Force* has been already defined. It is necessary to add two other definitions of cognate terms.

The persons in whom the Psychic Force is manifested abnormally or in excess are here called *Psychics*.

To the Science which Investigators base upon the phenomena exhibited and which explores the laws that regulate them, the appropriate name of *Psychism* is proposed to be given.

By these names, then, they will be known in the following chapters. In the senses above defined and in those senses alone will they be here employed.

It must be understood, also, that in this treatise on the "Mechanism of Man" we are concerned with the phenomena exhibited in *Psychism* only *so far as they are associated with that mechanism.* Whatever may be reasonably and probably referred to the action of some extra-human force, intelligent or otherwise, is a subject for profoundly interesting consideration in itself; but it would be out of place here. Our sole business in these pages is with facts and phenomena that are associated with the Mechanism of Man and serve to exhibit the nature of that Mechanism.

If phenomena are presented which are reasonably to be assigned to any non-human agency, whether angelic, or diabolic, or otherwise, they will not be recognised as subjects for discussion here.

PSYCHISM.

CHAPTER I.

OBJECTIONS AND OBJECTORS.

THE facts and phenomena of Psychism, like all other alleged *facts* in Science, can be determined by *Evidence* alone. Argument *a priori* is inadmissible for any other purpose than to show *primâ facie* improbability and, therefore, to secure more care in observation and more strict proof.

The proper province of argument, in questions of scientific fact, is to try the value and weight of the evidence and if the conclusions are logically and reasonably to be deduced from the collected testimony.

The same principle regulates the investigation of the aspects and characteristics of alleged phenomena and the conditions under which they are produced. These also are *facts* to be proved, or disproved, as are all other asserted facts, by *evidence*—that is to say, by witnesses who attest the results of their observations and experiments.

An objector may rightly join issue upon this. He may reasonably say of any asserted fact, "I have investigated it with patience and perseverence and can find no proof of its existence."

But, unfortunately for Science, it is not thus that novel facts and phenomena are usually dealt with by objectors. The assertions are not met with the calm, dispassionate questionings of doubters, who come with open minds and without prepossession or prejudice, sincerely desirous

to learn the very truth. For some reason yet mysterious, mental phenomena, and those of Psychism especially, are encountered by a passionate hostility that savours more of the *odium theologicum* than of difference of opinion upon a question of science and of fact. The intolerant bigotry of the middle ages, and even the persecuting spirit of that dark time, have been revived in this nineteenth century. Wherefore? What in the phenomena in question kindles such a fury of hostility, even if they be as unreal and baseless as their opponents allege?

There is another lamentable feature of this controversy. It is conducted as no other question of fact is fought in our day of free thought and free speech. The phenomena are not rejected by its opponents because they have examined them patiently, tried them, and found them to be false. Resort is had to the time-honoured argument, which has always and everywhere dogged the footsteps of advancing Science: "We say that it *cannot* be; therefore it is not." Thus the labour of experimental inquiry is avoided and dogmatism wins an easy victory.

Objections to the phenomena of Psychism, however differing in form, will be found to resolve themselves into two distinct classes.

1. That they are *illusions*.
2. That they are *delusions*.

In other words—

1. The experimentalist is self-deceived.
2. The experimentalist is deceived by others.

It must be remembered that we are not dealing now with phenomena of rare occurrence, like those of somnambulism, delirium, insanity, and other abnormal conditions of the mechanism, but with a series, the reports of which fill many volumes. We are treating of phenomena that occur daily in our midst; that are presented continually among the people of every country in the world, civilized or savage; that are witnessed and attested by thousands of persons in hundreds of households and which

any person may almost at any time and anywhere make trial of and probably witness for himself, with a little trouble and some patience and perseverance. For this purpose he needs rarely go beyond his own family circle and his own fireside. The proofs of the existence of *Psychic Force* as an active agent in the Mechanism of Man, and of its phenomena as facts in nature, are indeed vastly more numerous than the facts that form the foundation of any other science. The Witnesses comprise men of the highest intelligence, of the largest experience, men of thought and men of action, the keenest observers, the profoundest thinkers, the most calm and cool in judgment, of the foremost intellectual and social rank, Scientists practised in experiment, Lawyers skilled in evidence and trained to test witnesses and weigh proof, hard-headed men of business difficult to be deluded and not readily self-deceived.

Let the Reader think for a moment what is implied by the favourite objection of *self*-delusion. It means

That *every one* (without an exception) of these tens of thousands of reported phenomena is an illusion of the spectator!

That *every one* of the reporters of the phenomena, whatever his capacity in all other pursuits of Science and in all affairs of business,—whatever his reputation for sagacity or honesty—is, in fact, a fool!

That *every one* of the witnesses who have attested the phenomena, however intelligent and honest, was the dupe of self-delusion or the victim of imposture!

For it must be remembered by the student of Psychology,

That if *but one of all this multitude* of reported facts be *true*, the science based upon that fact is established as if all were true.

It will suffice for Science to be *assured* that in *one* solitary instance, at any time or in any place, an intelligent force has been exercised, not being one of the known physical forces. Following the path thus found, it will open to itself and to the world a new field

of knowledge that cannot but be fertile of results of the highest import to the whole future of humanity.

Although a thousand cases were delusions or frauds, if but *one* be genuine, it is enough. This fact and all that it involves is proved as certainly as if all were proved.

Surely it is incredible that such a multitude of men, comprising so many intelligent minds, so many competent observers, so many profound thinkers, so many robust intellects, should all be deceived as to the *evidence of their senses*. Such a conclusion would be *really* more marvellous than the marvels they attest.

It is, indeed, not uncommon to find even greater multitudes of wiser men implicitly accepting seeming impossibilities. But these are not the subjects of conviction based upon evidence, but of *faith* formed without evidence, or against it. *Faith* relies on the assertion of some *authority*, without inquiry into the grounds upon which the truth of the assertion is based. Science properly rejects *faith* as a factor in its own domain. Science demands *proof*.

The question for trial upon a disputed scientific fact, such as one of those to be presently examined, resolves itself into this. *Do* we see, feel, hear, what we think we hear, feel and see? Are our senses to be trusted? Are they "deceivers ever?" Is there nothing real, true, provable, admissible? Is *nothing* to be accepted, believed, or acted upon, which our senses carry to our minds?

Or, what *amount* of evidence is to justify acceptance of a fact? Are we really to echo the desponding cry of Macbeth, "and nothing is but what is not?"

In few words, is it, *can* it be, that—as the objectors aver—all that has been seen and heard and felt by hundreds of thousands of persons, of all degrees of intelligence, in all countries, is pure illusion? Has every one of the vast host of witnesses been deceived, not once, twice, or thrice only, but a hundred times—many a thousand times?

Again, we ask, is it *possible* that all of these myriads of phenomena can be *illusions*—which means that every one of the tens of thousands of witnesses who have attested, and still daily attest, the occurrence of the phenomena—men of science, men of business, lawyers skilled in evidence, physicians trained to observation—the testimony of whose senses would be accepted without hesitation in any case where life or fortune depended upon the accuracy of those senses, were and are, *in this instance alone,* deceived by their own senses—the very senses, be it observed, that are deemed so trustworthy and so trusted by themselves and the world in all other cases—inasmuch as they do *not* see, hear, and feel that which they believe their senses to present to them!

Moreover, with the crowd of witnesses in question the illusion is not of one sense only, but of all the senses; and not of one sense at one time, but of all the senses at the same time; and not of all the senses of one person alone, but of all the senses of many persons together.

Is this credible, probable, *possible*?

If compelled, by the verdict of common sense, to abandon this objection, the objectors have another which they urge with an air of even greater triumph.

"If not illusion, it is *delusion*; if not self-deceived, the witnesses are the dupes of *deception.* Doubtless, they see, hear, and feel what they assert, but they are the victims of imposture. The phenomena are only frauds. The incidents are but clever conjuring."

This is a more sensible objection, raising a more reasonable issue. Unlike the former one, it is not argumentative, but a *question of fact,* pure and simple, to be determined by *evidence* alone. If the alleged phenomena be frauds, impostures, the tricks of conjurors, they can be proved so to be by a very easy process. Show *how* they are performed and perform them. The conjuror's art is always capable of being taught and learned. He can exhibit the contrivances by which his cleverest tricks are performed. He can display his hidden mechanisms; he can do his sleight of hand slowly,

so that its method may be seen by every eye. Books open to all who desire to know describe accurately every detail of his performances and any person who cares to learn the art may do so with much labour. Thus we learn that, how ingenious soever the tricks, they are simply illusions.

So, if the alleged phenomena of Psychism are but clever tricks of conjuring imposture, they can readily be *proved* so to be. *Show how they are done by doing them under the same conditions.* Not only do them, but exhibit the manner of the doing. Go slowly through the entire of the contrivances, in the presence of witnesses, and exhibit every movement by which the alleged delusion is effected.

The unthinking have been much influenced by the professed imitations of some of the phenomena by showmen, who skilfully produce similar results by methods avowedly invented.

Upon this the plausible objection is preferred: "If all this can be done on that stage, may it not be presumed that the same thing is done in the same or some like manner elsewhere?"

The fallacy of this objection is transparent and could impose upon those only who are willing to be imposed upon.

There is nothing that ingenuity could not imitate. Given a clear stage for mechanism and a motive, pecuniary or otherwise, for the expenditure of sufficient money and skill, and all the beautiful experiments with which Professor TYNDALL delights his audience at the Royal Institution might be imitated, by artificial contrivances, at the Egyptian Hall. If a sufficient number of persons desired to have it shown that the PROFESSOR was an impostor and his experiments mechanical or dexterous tricks, they would certainly have been introduced long since to the visitors there as "a death-blow to electricity." The Professor would have been proclaimed an impostor and taken so to be by the gaping multitude. This has not been *his* fate only because nobody outside the circle of

science has any motive or desire to "put down" electricity. It conflicts with no prejudices, it disturbs no faiths, it threatens no interests.

The answer to this objection is obvious. It is not sufficient to *imitate* phenomena; anything can be imitated; you must do so *under the same conditions*. You may produce something very like them by your mechanism on or under your stage; but can you (the alleged exposer) produce them as they are produced naturally—that is to say—coming alone in a cab to a private house you had never entered before, bringing nothing with you but the clothes you wear, going into a strange room, with no confederate, but only eager detectives about you, your hands held by vigilant sceptics, your feet tied to your chair, a cord binding you to your neighbours, so that you shall not move an inch without instant discovery? If, indeed, thus guarded, you will do what is done upon that stage of your own construction, then you will prove to demonstration that the phenomena produced under all these conditions are not natural phenomena and that they may be, and probably are, the results of trickery. Unless this be done, nature and not artifice may fairly claim to be the parent of them. At least, the objector fails utterly to prove them to be tricks.

But there is another refuge yet for the objectors. "Frauds," they say, "have been detected; imposture has been proved."

Doubtless it is so. Impostures are many. Impostors are impudent and have been too often successful in deceiving the unwary. It is the way of the world. Wheresoever there is a prospect of profit, rogues rush in with the honest men. If anything attracts notice and prospers, imitations and impostures crowd about it. The sham follows the real as the shadow the sun. It seems to be forgotten that a sham implies the existence of a reality—imitation a thing to be imitated.

If the alleged phenomena are frauds, why, in the interests of science, of truth, and of justice, are they not instantly

exposed and the fallacies founded upon them exploded at once and for ever, as thus they would be.

The process is simple and sure. *Do the same thing, in the same way, under the same conditions, and show how it is done.* There are persons who live by professing to be able to accomplish this. But they refuse to show how the trick is performed, on the plea, that to exhibit the contrivance would destroy the interest of their exhibition and with it their source of profit. If this is not a mere excuse, indemnify them. Such a revelation would be cheap at almost any price. But the proposition has actually been made and is now open for acceptance. A wealthy gentleman has publicly offered *a thousand pounds* to any person who will produce the same phenomena under the same conditions. Why has such a magnificent prize been rejected? Impostures can be reproduced at will. It is certainly remarkable that no person has accepted the offer so made. Is not the reasonable conclusion that they do not because they cannot. Would not the Egyptian Hall long since have secured the prize—if it could?

These objections disposed of, the inquiry resolves itself into a question of *evidence.* Admitting that the phenomena occur, the only question can be, if they are produced by fraud or by some other agency. This, like every other fact, can be determined by *evidence* alone. The burden of proof is upon those who allege fraud. What *is* the proof of it? It is freely admitted that there has been imposture in many cases. But to establish this as an objection to the whole array of witnesses, it must be proved that there is imposture *in all cases.* The answer is, that there is no such proof; that crucial test conditions have precluded fraud in the vast majority of cases.

When all other objections fail, another is often started, and, strangely enough, it is specially affected by Scientists, whom repeated experience of things, pronounced to be impossible, afterwards proving to be true, might have been expected to make more cautious. "No

amount of evidence," says such an objector, "would suffice for proof. I would not believe the phenomenon if I saw it. I would conclude that the senses of the whole world were deceived rather than that this phenomenon should have occurred. It is contrary to the order of Nature and therefore it *cannot* be."

The first answer to this somewhat ridiculous objection is a retort.

If the objector be a professing Christian, ask him if he believes the miracles reported in the Bible? "Of course I do." "Upon what evidence?" "On the assertion of those who witnessed them." "But you object that no amount of evidence will entitle these phenomena, because seemingly extra-natural, to be credited by you, although attested to you by hundreds of *living* witnesses. How then do you accept avowed miracles on the testimony of persons you have not seen and do not know?" In a moment he is put to shame.

The Materialist meets the question otherwise. He frankly avows that he rejects the miracles of the Bible. He must, therefore, be met by other arguments. The answer to *him* is—that all human knowledge is based upon the testimony of our own senses and reliance upon the senses of other men. Argument is admissible to try the weight and worth of the evidence of the fact, but not to determine *à priori* if the fact exists.

The whole history of Science offers the best and most conclusive answer to this objection of the Scientists. Almost every fact now accepted as true was denied at first.

If appeal is made to the evidence of the senses, not of one alone, but of tens of thousands, who believe they have seen, and heard, and felt, the ready answer is an admission that our senses are often deceitful. Daily we imagine we see, hear, feel that which is not. But not the less are we dependent upon our senses for all our knowledge. The most important affairs of life are conducted in confident reliance upon our *senses*. Justice is administered upon evidence of the senses,

which are presumed to be reliable for every other purpose of existence. Wherefore, then, reject them in this alone? But, although the senses of an individual may be deceived sometimes, it never occurs in actual life that the same sense of a great number of persons is deceived at the same moment; still less that all the senses of many persons are deceived, not merely at various times but at the same instant, and not one sense only but all their senses.

Something of the same nature is the objection that the observers are "biologised;" that they are under the spell of the medium, who throws them into the "biological" condition (whatever that may be), and then makes them believe that they see, hear, and feel whatever he suggests, precisely as is witnessed with "biologised" patients in a lecture room.

It is amusing to note that this objection is urged most frequently by those who deny the existence of electro-biology and call that also an imposture! With them, therefore, it is not an honest objection. But the doubt has presented itself to some who, accepting the phenomena, desire to account for them without adopting the spiritual theory. The answer to this objection is conclusive. The biologised—that is, the hypnotised—patient has not the slightest memory of anything that occurred in his hypnotic state. The witnesses of Psychic phenomena never lose consciousness and retain a perfect memory of all that occurs. Again; only about one person in four can be "biologised;" whereas all the observers of psychic phenomena have the same perceptions; all must be deluded, or none. There is another decisive answer. If the supposed phenomena are imaginary, not real, how comes it that the servant, who cleans the room *after the meeting*, finds the chairs, tables, books, vases and such like, heaped or thrown about in all parts of it. She, at least, was not "biologised." Her labour to restore order emphatically answers the objection that the motions of those solid bodies were imaginary. Howsoever caused, they are certainly real motions.

There are some other cavils of less weight—mainly frivolous and foolish—which it is unnecessary to notice.

Such being the principal objections, who are the objectors?

Are they persons who, having seen, tried, and experimented fully, fairly, and patiently, have come to the conclusion that the alleged facts do not occur at all, or that they are the work of fraud which they have discovered and can describe?

It is one of the strangest features of this controversy that *none* of the objectors have personally and patiently investigated the alleged phenomena, and few have witnessed anything of that whose existence they deny. They do not speak from their knowledge but from their ignorance. No sane person would give heed for a moment to a man who dared to dispute the phenomena of electricity without having witnessed and examined them. What claim to a better reception has the uninstructed objector to the facts of Psychism?

The testimony of the thousands of witnesses and the vast mass of accumulated evidence are disputed by those only who have never seen, nor patiently examined, the phenomena they deny—by those who can fight only with *à priori* argument, with the feminine reason "it cannot be and therefore it is not"—witnesses who would be banished with ignominy from the witness box of any Court of Justice in any civilized country in the world!

CHAPTER II.

THE WITNESSES.

It must be distinctly understood that Psychology is a *Science*, not a *creed*; a question of *fact*, not of *faith*; to be determined by *evidence*, not by *authority*; to be pursued by observation and experiment, not by metaphysical abstractions and by *à priori* argument.

Therefore, like all other questions of fact, the truth of the alleged phenomena must be tried by the testimony of witnesses alone, and witnesses must be weighed as well as counted.

The undisputed psychological phenomena already examined, as those of dream, delirium, insanity, somnambulism, catalepsy, and trance, need no inquiry into the weight of the witnesses and the worth of their evidence. It is otherwise with the classes of phenomena whose existence is disputed. Psychic phenomena being one of those disputed classes, a preliminary review of the array of witnesses will assist the examination of the facts which they attest.

In *number* the witnesses are legion. They are to be counted by thousands and tens of thousands. They come from all countries; they are of all classes, of all creeds, of all ages and both sexes.

But it is contended that numbers do not make *proof*, for there is no religion nor superstition, however fantastic or impossible, that cannot produce a multitude of believers in its verity.

The argument is wholly irrelevant. Psychic phenomena are questions of *fact*, not of *faith*. The witnesses are not called to attest their *belief*, but what they have personally *seen*, *heard*, and *felt*. Thus this inquiry differs from disputed *creeds*, with which opponents endeavour to confound it.

Weight is given to evidence of the senses by the numbers of the witnesses. The attestation of twenty persons that they saw the same thing at the same time, is of vastly more value than that of two or three persons, because of the improbability of multiplied self-deception. But if thousands of witnesses assert that they have seen the same phenomenon in a hundred different places, not once only but many times, the weight of the evidence is multiplied in yet greater proportion than the multiplication of the witnesses.

The phenomena of Psychism might well rest upon the testimony of numbers alone. But it can present *worth* as well as *weight* of evidence.

Among the witnesses, eminent above the multitude, are men whose testimony has been accepted by the world as of pre-eminent value in other questions of Science, because they are deemed to be more than commonly shrewd observers and specially practised in the cautious use of their senses. It is enough to note here, as a few instances among the many, the names of Professor De Morgan, F.R.S.; Mr. A. Wallace, F.R.S. (the distinguished Naturalist, who disputes the palm with Darwin); Mr. Crookes, F.R.S., (the discoverer of the metal Silenium and the inventor of the radiometer, itself the product of a psychic experiment); Professor Hare; Lord Lindsay, F.R.S.; Professor Barrett; Dr. Ashburner; Dr. Elliotson; Professor Zolner (the foremost mathematician of Germany.)

Such witnesses possess the special title to respect of being skilled observers, trained to guard their senses against deception and whose scientific knowledge secures sufficient assurance by way of strict test and exhaustive experiment.

A long list might be made of practical men, accredited by the world with possession of more than average keenness of observation, shrewdness of judgment and strong common sense, who not only assert that they have personally witnessed the alleged phenomena many times, under various conditions, but who have made full reports of their experiences, containing the minutest details of what they had so seen. Among these are many lawyers of repute, practised in the cross-examination of witnesses, in the testing of testimony, in weighing evidence and forming a fair judgment, after a calm review of all that can be advanced on either side. Others of the witnesses are men of business, who have proved their capabilities by their successful enterprises, and whose evidence in the witness box would be accepted without hesitation by any jury, in any Court, upon any matter affecting life, liberty, or property.

And all of these witnesses have come forward to assert what they believe to have been the truthful reports of *their own senses*, in despite of the unpopularity which the votaries of the Materialism of Man have been but too successful in exciting and directing against all who assert as a fact anything that tends to prove the existence of a non-molecular Soul in Man and the consequent probability of a life after the dissolution of the molecular body, with which it is encrusted as the necessary condition of a temporary life in a molecular world.

CHAPTER III.

PSYCHIC FORCE.

SOME years ago there was a popular amusement called *table turning*. A number of persons seated themselves about a table, laying their hands upon it. Often, but not always, and after a lapse of more or less of time, the table was found to tip, or to revolve, or to slide along the floor, sometimes with such rapidity that the sitters had to rise from their seats and run to keep pace with it.

The undisputed fact received a ready explanation from the scientists. The motions, they said, were caused by the pressure of the muscles of so many hands upon the table, unconsciously following the desire that it should move in a certain direction. Elaborate calculations were made of the amount of force applied to a round table of certain dimensions by twenty hands pressing upon it at the extremities of a series of levers of which the centre pedestal was the fulcrum. So satisfied was Professor FARADAY that this was the true solution of what appeared to the unthinking as a very remarkable phenomenon that he constructed a machine which exhibited to the eye and accurately measured the amount of pressure thus involuntarily exercised; not unreasonably anticipating that the seeming mystery would be thus solved to the satisfaction of all beholders and a popular delusion, as he honestly believed it to be, dissipated at once and for ever.

The machine was tried and, greatly to his own

astonishment, was found to fail. It detected the presence of *some* amount of involuntary pressure, but none that would account, even approximately, for the force necessary to produce the motions that were witnessed. Not only was the pressure of the hands proved to be very trifling indeed, but this was neutralised by the absence of unanimity in the direction of that pressure. The sitters never desired at the same moment the same movement; consequently, all the involuntary pressures of all the fingers were never made in the same direction. The machine itself was speedily consigned to the museum of useless inventions, and the problem *how* the tables were turned remained as insoluble as ever.

The next discovery was, that many hands were by no means necessary to produce the result. When the experiment was tried for the first time, success more frequently attended a large party than a small one. After a few trials, three or four persons were found to be as efficient as twenty. The cause of this is now known and will appear presently. At the time of the early trials of the experiment, this result was not unreasonably accounted for by the "unconscious pressure" theory. It was seen, after awhile, that in fact there was no connection between the number of hands and the extent of motion.

It was next found that certain persons possessed greater power than others for the production of the motions. By merely laying one hand upon the table, they could produce frequently a more vigorous movement than a party of ten or twelve could produce with both hands.

It appeared, also, that certain other persons failed to procure the slightest motion, however persevering their effort or forcible their pressure. They sat patiently at the same table for many hours night after night and nothing came. It was noticed by some of those who were thus vainly experimenting that they had been present at other parties where the phenomena were exhibited with speed and vigour. Then it was observed

that, when certain persons were present, the experiment rarely failed, and that when certain other persons were present it rarely succeeded. From this it was surmised that the production or nonproduction of the motions was in some unknown manner connected with those persons.

The answer of the doubting to this was, of course, the ready one. "The presence of those persons is necessary because they know how to produce the motions by some secret contrivance of their own; *they* have learned the art and the others have not." The tests and experiments by which this not unreasonable suggestion was entirely disproved will be detailed presently.

The next discovery was that the motions appeared often to be in accordance with the *expressed Will* of one or more of the persons engaged in the experiment.

Then it was observed that faint sounds of a remarkable character sometimes accompanied the motions. For a long time these were supposed to be creakings in the woodwork of the table, caused by the moving of it, and although they were, in fact, very unlike any of the sounds produced when the table was purposely moved, the solution seemed probable. No suspicion being then entertained of the existence of any other cause for the sounds, it was generally accepted.

Nevertheless, the thoughtful few were perplexed by the fact that, when certain persons were present, these sounds were heard more distinctly and loudly than at other times and then resembled rather thumps upon the wood than creakings in it. It was next ascertained that the sounds were not necessarily connected with the motions. But they were produced under precisely the same conditions and always near the persons whose presence was found to be necessary to the production of motion.

Soon afterwards it was discovered that these sounds were not purely mechanical. They were manifestly directed by some *Intelligence*. Then came the question, what was the source of that Intelligence?

Upon this the Investigators were of divided opinion. The majority adopted the time-honoured practice of attributing to the action of supernatural beings that for which they could not at once find a natural or scientific explanation. Another, but smaller, party contended that we had no right to resort to the supernatural until all natural explanations were exhausted; that it was sufficient, at this early stage of information, to accept the fact without attempting to explain it, and that we should be content to trace with patience and perseverance the conditions under which the phenomena are produced, thus seeking after causes and sources in obedience to the true principles of scientific research.

The next fact presented was that these motions of heavy bodies were associated with the presence of certain persons. Taking these conditions together, the scientific inquirer deduced the not unreasonable conclusion, that the force producing the motions and sounds proceeds, in some manner not yet ascertained, from the organisation of one or more of the persons present.

The careful experiments made upon it proved conclusively that this force was not either of the known physical forces, but a force intimately associated with, if not directly proceeding from, the human mechanism. It differed in most important characteristics from the *Nerve Force*, or *Vital Force* (whatever the name preferred for that force by which the functions of life and mind are sustained). Ultimately the scientific Investigators adopted the suggestion of the Author of this book, and gave to the force so exhibited the name of PSYCHIC FORCE, and to the persons whose presence is necessary to its perceptible action the name of PSYCHICS.

On the other hand, a far more numerous following has adopted with implicit faith the doctrine of those who assert that the agency in the production of these phenomena is neither human nor mundane, but the disembodied Spirits (or Souls) of persons who have passed away from their existence in this material world, and who are permitted thus to hold communication with the

living, for the purpose mainly of giving them assurance of a life beyond the grave. They have taken the appropriate title of SPIRITUALISTS, and their creed is expressed in the term *Spirit communion*.

On this assumption they have established what is really a Religion, having a definite creed, preachers and teachers without number, and upwards of ten millions of disciples, of whom eight millions are said to be found in the United States, one million in Great Britain and her colonies, and another million about equally divided among the other countries of Europe. In all languages able journals are actively devoted to the propagation of this creed, whose success is altogether without precedent in history, and doubtless is due to the rare circumstance, that its foundation is laid entirely upon *facts* and not wholly or chiefly upon *faith*. The evidence it offers is not of feelings but of the *senses*, and of the truth of which every man may assure himself, if he pleases. Its preachers do not invoke authority nor ask for confidence; but they say, "*Behold and see!*" They call this new cult SPIRITUALISM.

But to the scientific observer this is not satisfactory. To the Philosopher, and especially to the Psychologist, there is a tremendous leap from the proved facts to the conclusion that has been based upon them. It is one thing to say that furniture is moved by an unknown force and that some yet untraced Intelligence makes sensible communications, and another thing to conclude that these motions and utterances are the work of Spirits of the Dead. To reasoning and reflecting minds, and especially to such as have been trained to the pursuit of science, there is a wide region of research to be traversed between acceptance of the fact that intelligent communications are made by some unexplained process, under certain unascertained conditions that are obviously physiological and psychical, and the conclusion that Spirits of the Dead are the producers of the phenomena and the authors of the communications. Before Science can accept this, or any other conclusion, it is bound to

examine every fact, every phenomenon, every condition attending production, and to exhaust all known and even all possible natural agencies and all physical and psychical forces, powers, and properties. This, and this only, is the contention of the *Scientific Investigators* who have advanced the title of PSYCHIC FORCE purposely to avoid the foregone conclusion implied in the more popular name. They do not thereby intend to assert that the Spiritual theory is absolutely false, but only *that it is as yet unproved.* It will be seen presently that the theory of *Psychic Force* possesses at least this remarkable recommendation, that *it is accepted, even by the Spiritualists, as being true so far as it goes.* They admit the existence of Psychic Force, although sometimes calling it by the very misleading name of "animal magnetism." They confess that its presence is necessary to the production of the phenomena, and they add to this admission the somewhat startling assertion that the Spirits of the Dead can only manifest themselves to the material senses of the living by using the Psychic Force of certain persons who have it in excess (whom they call Mediums), and in some mysterious manner applying it to the production of sounds and sights and motions perceptible to the senses. Scientifically expressed, they explain it as the conversion by the Spirit power of atoms which are imperceptible to the senses into molecules which are perceptible. "Your *Psychic Force,*" they say, "is only our *Magnetism,* which enables the Spirits to aggregate atoms into molecules, and so to make themselves, or anything so aggregated, perceptible to the human senses."

Psychic Force, as its name indicates, is the force employed by the Conscious Self (or Soul) for the purpose of controlling and directing the action of the material mechanism. The existence of such a force is of course denied by the Materialists. But the appeal is to every Reader. Is *he* not conscious that, when he desires his hand to write, some force sets the muscles in motion and directs them so to shape the letters. Whence comes that force? Certainly from some intelligence, for it

guides intelligent action. Is the force from within or from without? Doubtless from within. What is the guiding intelligence within but the Self or Soul? Is that force improperly termed the *Psychic* (or Soul) force? This at least is the single sense in which it is used here.

CHAPTER IV.

THE METHOD OF INVESTIGATION.

PSYCHIC Phenomena, apparently as various as they are numerous, will be found to admit of something like classification. So arranged, they will be more readily remembered, and their mutual relationship will be better seen, as will also their bearing upon this inquiry into the Mechanism of Man.

We propose to review them in the order in which they appear to be developed, advancing from the most simple to the most complicated; from such as offer nothing to surprise, and which would scarcely attract notice, unless attention were directed to it, to those strange, startling exhibitions of the action of a force that, whatever its origin, is certainly not one of the known *physical* forces.

Twenty such volumes as this would not suffice for the reports of these phenomena already contributed from authentic sources. Selection, condensation, and classification are therefore unavoidable. The only practicable plan will be to adduce a few representative cases of each class of phenomena, leaving the reader to pursue the investigation among the original records, or by the more satisfactory method of personal experiment, if the reports presented in these pages should kindle in him curiosity to learn further of them.

I must confess to some perplexity in choosing between two kinds of evidence—the testimony of others and my own witnessing.

My title to be accredited as a witness may be stated shortly. Many years ago I received from friends reports of strange phenomena which they had witnessed. Sceptical by nature and made more so by an ardent love for Science, while not doubting the veracity of my informants, I questioned their capacity for observation, concluding that they were self-deceived or the dupes of others, inclining rather to the theory of *ill*usion than of *de*lusion. Of this I was confident, that if I, utterly disbelieving the asserted facts and that such things *could* be, were to view the phenomena three times, I should speedily detect the self-deception, or the imposture, whichsoever it was.

Applying to Scientists for their opinion upon the asserted phenomena, I was surprised to find that, not only had they *not* seen and examined them, but that they had refused even to view them. They had but to use their eyes, their ears, and their understandings for a few hours to assure themselves if these reported phenomena were a delusion, an imposture, or a reality. In either case, their duty was plain. They would do good service to the cause of truth by dissipating the delusion, if such it was, and detecting and exposing an imposture. But if it should prove to be a reality, its importance to Science, and especially to Physiology, could not be exaggerated. Inquiring why they did not investigate a fact so interesting and so important, and yet so easily proved or disproved, I was, to my amazement, answered that no amount of evidence could prove it. "Motion without contact," — "Action at a distance," they said, "is a physical impossibility, because it is opposed to the law of gravitation. If, therefore, they were to witness it with their own eyes, and all the world were to bear testimony to it, they could not accept it as a fact, for it was more probable that the senses of all mankind should be deceived than that a law of nature should be infringed!"

Such an argument, however satisfying to the scientific mind, somewhat astonished my less subtle legal mind.

It certainly seemed to me that this argument *à priori* was at once irrational and dangerous. It proceeded on the assumption that all of Nature's laws are already known to us and rightly understood and interpreted; that we are acquainted with all her forces, and the modifications of those forces, and how they act and react one upon another. I remembered how very little is actually known of the laws of life; how ill-informed we are of the forces by which organic matter is governed; how wholly ignorant we are of the nature of those forces, and of the conditions of existence of all that larger portion of the Universe which is not sufficiently material to be perceptible to our senses, and of whose existence therefore we can have no cognisance otherwise than in its manifestations. I asked, if the psychical phenomena might not be governed by some other law than that of gravity. I referred to the instance of the magnet, where was motion without contact and in direct opposition to the law of gravity, and I inquired why this fact also was not denied upon precisely the same grounds? The identical arguments would prove the motion of the needle by the force that flows from the magnet not to be a fact, although it appears to our senses to move. Attraction by the magnet is *à priori* impossible. But the evidence of the senses is in this instance permitted to outweigh the disproof by argument. Why not in the other instance also? In the case of the magnet, the efforts of science are properly directed to discover the nature of the force by which the force of gravity is overcome and what are the laws that thus overrule the previously known laws. Hence the science of magnetism, with its manifold uses. Let us, therefore, in respect to these alleged psychical and mental phenomena, first see what *the facts* are. When we have *the facts*, and not before, we shall be in a condition to seek for the interpretation of them.

I argued in vain. Still the dogmatical answer was the same as given by the Church to Galileo. "It *cannot* be, therefore *it is not*. Unless you can explain

to me *how* it is, I will not trouble myself to inquire *if* it is."

As a Lawyer, educated in the principles and practice of evidence, I could not accept this argument; and receiving no help from the Scientists, I resolved to pursue the inquiry personally.

I was invited to join the Investigation Committee of the London Dialectical Society, in the character of a Detective, my own conviction as to the delusive nature of the alleged Phenomena being as yet unshaken. The Committee was joined by Mr. W. CROOKES, F.R.S., who was as sceptical as myself. Both of us entered upon our duties with the most confident assurance that we should, as was expected of us, and doubtless desired, explode by exposure what we conscientiously believed to be an impudent imposture or a foolish fantasy. To this the proved skill of Mr. CROOKES in devising and trying scientific tests, combined with my own experience in the sifting and weighing of evidence and the probing of witnesses, were expected to contribute materially. The Scientific World shared this expectation, and the journals exclaimed with exultation, "Now that this superstition is to be investigation by a skilful Scientist and an experienced Lawyer it will be extinguished in a week!"

The actual result of the investigation upon ourselves and the other sceptics who joined us in it will be now narrated.

CHAPTER V.

THE PHENOMENA OF PSYCHISM.

I.—AUTOMATIC MOTION AND SOUNDS.

THE following report of the proceedings of the Investigation Committee was published in a pamphlet (*a*) from which it is abbreviated.

When the London Dialectical Society resolved to appoint a committee to examine and report upon the pretensions of Spiritualism, I entered upon its duties, in common with five-sixths of the members of that committee, having the most firm conviction that we should detect a fraud or dissipate a delusion. I hoped that long experience in the work of sifting and weighing evidence, and resolving what does or does not constitute proof of asserted facts, would enable me to do good service in detecting imposture and discovering its contrivances. And such were the aims and the expectations of the great majority of my colleagues, comprising men of various pursuits and capacities, ingenious lawyers, practised scientists, skilful doctors, authors, artists, and shrewd men of business—all of them persons with keen senses, proved powers of observation, suspecting and looking for imposition and therefore more than commonly vigilant with eye and ear, and rigid in the application of tests.

Before we commenced to examine, it was our confident belief that the alleged phenomena were:—

1. Self-delusion by the spectator; or,
2. Imposture by the Psychic; or,
3. Involuntary and unconscious muscular action.

With our minds thus prejudiced strongly against the reality of the phenomena, we proceeded to their investigation.

(*a*) *Spiritualism answered by Science, with Proofs of a Psychic Force.* By EDWARD W. COX, Sergeant-at-Law. Second Edition. London: Longman & Co.

Experiments by the Sub-committee of the Dialectical Society.

It was resolved that we should meet only at the private residences of members of the committee, so as to preclude all possible prearrangement of mechanism or other contrivances.

That no professional medium should be employed.

That careful notes should be taken of each experiment and signed for verification by all present.

A Psychic was found in the person of a Lady, the wife of one of the members of the general committee, of high professional and social position. In this we were pre-eminently fortunate, for the Lady in question had never witnessed any of the phenomena with others, and therefore could not have learned the sleight of hand, requiring the practice of a life for its mastery, which would be necessary for the successful performance of a trick, if trick it was. In truth, she had discovered their production in her own presence only by chance, a few weeks previously to acceding to the request of the sub-committee to assist them in their experiments.

But six only of the forty experimental meetings of the committee were held at this lady's house; all the other meetings were held at the houses of members, and some of them at my own residence; so that I can affirm positively the absence of any mechanical or other pre-arranged contrivances by which the phenomena there witnessed could have been produced.

Is it Illusion or Delusion?

We were speedily satisfied that it was not an *illusion* of the senses. The sounds were distinctly audible to the ear, the vibrations palpable to the touch, the motions obvious to sight. It was not a question of doubtful mental impression only, but of actual measurement. The table and other pieces of furniture had changed their position by so many inches, feet, yards. There could be no possible mistake as to this fact of motion. We were compelled to dismiss our theory that it was a *self-delusion*.

But the motion and sounds may have been produced by trickery and fraud. That was our second theory. Accordingly, we assumed the office of detectives. We sat under the table while the motions and sounds were most vigorous. We held the hands and feet of the Psychic. Every hand in the circle was held by its neighbour; the gas was bright above us; not a finger could have stirred without being perceived by some of the many eyes that were keeping watch. Our ingenuity was exercised in the invention and application of tests. *After trials often repeated we were compelled to confess that imposture was out of the question.* The motions and sounds were undoubtedly real, and were certainly not caused by any trickery.

Is it Unconscious Muscular Action?

We retreated then upon the third theory, boasting Faraday as its parent, and repeated ever since by objectors (who had not seen them), as the easy and sufficient explanation of the phenomena we were witnessing—namely, involuntary and unconscious action of the muscles of those by whom the heavy body was touched. "Here," we said, "are eighty fingers upon the table. If each one exerts but a pressure so slight as to be imperceptible even to themselves, the aggregate sum of pressure will be very considerable. Apply these multiplied pressures at the edge of the table, and every finger is converted into a lever of which the centre of the table is a fulcrum. Make trial of it and it will be found so to be. That the muscles will act unconsciously there can be no doubt; and after a lengthened resting of the hand in a constrained position there is an involuntary contraction of the muscles, sufficient by their accumulated force to cause motion of the table, even though every person present should scrupulously endeavour to avoid pressure."

Such was the reasonable argument that led us to look to involuntary muscular action as the explanation of the motions and sounds that were continually being made. To ascertain if this hypothesis was correct, we devised a series of tests that should place the matter beyond all possible doubt. First, all hands were laid upon the table; then one hand only of each person; then the table was touched by the tips only of all the fingers; then by the fingers of one hand alone; then with one finger only. Still the motions and sounds continued with but slightly diminished force. If our theory of involuntary pressure was correct, the force should have diminished in precise proportion to the lessened points of contact. Moreover, it did not explain the fact, continually before our eyes, of the table being raised several inches from the floor on one side only, the muscular action of the fingers upon that side of the table being antagonistic and not contributory to such a motion! We continued our experiments with lessened faith in our foregone conclusion. First, one person withdrew from all contact; then a second, and a third, until one finger of one person only touched the table. Nevertheless it moved, the sounds continued to come from it, and a frequent motion was the lifting up of the table at the side on which the finger was pressing down, if exercising any pressure whatever. I should state that at all of these test experiments the tables employed were large and heavy dining tables, some nine feet and some twelve feet long, with six legs or more, in daily use in the dining-rooms of members of the committee, standing upon Turkey carpets, therefore not easily slid and difficult to move by the arm. We next tried a more decisive test. All hands were joined and held over the table at the height of three inches from it, no part of any hand touching it, the room

being well lighted with gas and all eyes keeping careful watch upon the lifted hands. The sounds were heard and the motions produced as before. It was suggested that possibly the feet might be at work; so two of the members seated themselves under the table to observe. The motions and sounds continued, but not a foot stirred. Then all the persons present stood, so that *no* foot could touch the table unseen. Still it moved. Lastly we devised a test that conclusively settled the question as to the possible agency of muscular action, conscious or unconscious. It was contrived thus:—All present turned the backs of their chairs to the table, and, kneeling upon the chairs, placed their arms upon the backs of the chairs, their hands being extended above the table, but without possibility of contact with it. The chairs were first placed six inches from the table, with which, as the reader will readily understand, neither foot nor hand, nor any part of the person, of any of those present could possibly come into contact unseen. In this position the table moved eight inches over the carpet and tilted several times. The chairs were then withdrawn further from the table, on each trial to an increased distance, and with the same results. At the distance of two feet from it the motions were continued, with but slightly diminished power. I must repeat that this was tried in the dining-rooms of members, some of them in my own house, with none present but the Committee and the Psychic. These experiments of motion without contact were repeated many times at different meetings in different houses, and with the same results. Thus was our third and last explanatory conjecture, which we had eagerly accepted on the authority of Faraday, completely demolished by the facts, and we were compelled reluctantly to the conclusion that there is a Force, apparently proceeding from the human organisation, by which motion is produced in heavy substances without the employment of any muscular force, and without contact or material connection of any kind between such substances and the body of any person present. We agreed also that these sounds and motions were directed, frequently, by some *intelligence;* but as the duty of the committee was merely to ascertain the facts, and not to inquire into causes, with these conclusive proofs of the physical facts we closed the investigation and reported accordingly.

I present here the entire of that report:

Since their appointment on the 16th of February, 1869, your sub-committee have held *forty* meetings for the purpose of experiment and test.

All of these meetings were held at the private residences of members of the committee, purposely to preclude the possibility of prearranged mechanism or contrivance.

The furniture of the room in which the experiments were conducted was on every occasion its accustomed furniture.

The tables were in all cases heavy dining tables, requiring a strong effort to move them. The smallest of them was 5ft. 9in. long, by 4ft. wide, and the largest 9ft. 3in. long and 4¼ft. wide, and of proportionate weight.

The rooms, tables, and furniture generally were repeatedly subjected to careful examination before, during, and after the experiments, to ascertain that no concealed machinery, instrument, or other contrivance existed by means of which the sounds or movements hereafter mentioned could be caused.

The experiments were conducted in the light of gas, except, on the few occasions specially noted in the minutes.

Your committee have avoided the employment of professional or paid mediums, the mediumship being that of members of your sub-committee, persons of good social position and of unimpeachable integrity, having no pecuniary object to serve, and nothing to gain by deception.

Your committee have held some meetings without the presence of a medium (it being understood that throughout this report the word "medium" is used simply to designate an individual without whose presence the phenomena described either do not occur at all, or with greatly diminished force and frequency), purposely to try if they could produce, by any efforts, effects similar to those witnessed when a medium was present. By no endeavours were they enabled to produce anything at all resembling the manifestations which took place in the presence of a medium.

Every test that the combined intelligence of your committee could devise has been tried with patience and perseverance. The experiments were conducted under a great variety of conditions, and ingenuity has been exerted in devising plans by which your committee might verify their observations and preclude the possibility of imposture or delusion.

Your committee have confined their reports to *facts* witnessed by them in their collective capacity, which facts were *palpable to the senses, and their reality capable of demonstrative proof.*

Of the members of your sub-committee about *four-fifths* entered upon the investigation wholly sceptical as to the reality of the alleged phenomena, firmly believing them to be the result either of *imposture* or of *delusion*, or of *involuntary muscular action.* It was only by irresistible evidence under conditions that precluded the possibility of either of those solutions, and after trial and test many times repeated, that the most sceptical of your sub-committee were slowly and reluctantly convinced that the phenomena exhibited in the course of their protracted inquiry were veritable facts.

The result of their long-continued and carefully-conducted experiments, after trial by every detective test they could devise, has been to establish conclusively:

First: That under certain bodily or mental conditions of one or more of the persons present, a force is exhibited sufficient to set in motion heavy substances, without the employment of any muscular force, without contact or material connection of any kind between such substances and the body of any person present.

Second: That this force can cause sounds to proceed, distinctly audible to all present, from solid substances not in contact with, nor

having any visible or material connection with, the body of any person present, and which sounds are proved to proceed from such substances by the vibration which are distinctly felt when they are touched.

Third: That this force is frequently directed by intelligence.

At *thirty-four* out of the forty meetings of your committee some of these phenomena occurred.

A description of one experiment, and the manner of conducting it, will best show the care and caution with which your committee have pursued their investigations.

So long as there was contact, or even the possibility of contact, by the hands or feet, or even by the clothes of any person in the room, with the substance moved or sounded, there could be no perfect assurance that the motions and sounds were not produced by the person so in contact. The following experiment was therefore tried:

On an occasion when eleven members of your sub-committee had been sitting round one of the dining-tables above described for forty minutes, and various motions and sounds had occurred, they, by way of test, turned the backs of their chairs to the table, at about nine inches from it. They all then knelt upon their chairs, placing their arms upon the backs thereof. In this position, their feet were of course turned away from the table, and by no possibility could be placed under it or touch the floor. The hands of each person were extended over the table at about four inches from the surface. Contact, therefore, with any part of the table could not take place without detection.

In less than a minute the table, untouched, moved *four* times; at first about *five* inches to one side, then about *twelve* inches to the opposite side, and then, in like manner, four inches and six inches respectively.

The hands of all present were next placed on the backs of their chairs, and about a foot from the table, which again moved, as before, *five* times, over spaces varying from four to six inches. Then all the chairs were removed twelve inches from the table, and each person knelt on his chair as before, this time however folding his hands behind his back, his body being thus about eighteen inches from the table, and having the back of the chair between himself and the table. The table again moved four times, in various directions. In the course of this conclusive experiment, and in less than half-an-hour, the table thus moved, without contact or possibility of contact with any person present, thirteen times, the movements being in different directions, and some of them according to the request of various members of your sub-committee.

The table was then carefully examined, turned upside down and taken to pieces, but nothing was discovered to account for the phenomena. The experiment was conducted throughout in the full light of gas above the table.

Altogether, your sub-committee have witnessed upwards of *fifty* similar motions without contact on *eight* different evenings, in the houses of members of your sub-committee, the most careful tests being applied on each occasion.

In all similar experiments the possibility of mechanical or other

contrivance was further negatived by the fact that the movements were in various directions, now to one side, then to the other; now up the room, now down the room—motions that would have required the co-operation of many hands or feet; and these, from the great size and weight of the tables, could not have been so used without the visible exercise of muscular force. Every hand and foot was plainly to be seen, and could not have been moved without instant detection.

Delusion was out of the question. The motions were in various directions, and were witnessed simultaneously by all present. They were matters of measurement, and not of opinion or of fancy.

And they occurred so often, under so many and such various conditions, with such safeguards against error or deception, and with such invariable results, as to satisfy the members of your sub-committee by whom the experiments were tried, wholly sceptical as most of them were when they entered upon the investigation that *there is a force capable of moving heavy bodies without material contact, and which force is in some unknown manner dependent upon the presence of human beings.*

Your sub-committee have not, collectively, obtained any evidence as to the nature and source of this force, but simply as to *the fact of its existence.*

There appears to your committee to be no ground for the popular belief that the presence of sceptics interferes in any manner with the production or action of the force.

In conclusion, your committee express their unanimous opinion that the one important physical fact thus proved to exist, that *motion may be produced in solid bodies without material contact, by some hitherto unrecognised force operating within an undefined distance from the human organism, and beyond the range of muscular action,* should be subjected to further scientific examination, with a view to ascertain its true source, nature, and power.

The notes of the experiments made at each meeting of your sub-committee are appended to this report.

Additional Experiments.

But although as a committeee our work was ended, the phenomena we had witnessed, and of whose reality we were assured by the most conclusive evidence, could not but induce in the most thoughtful of the members various conjectures as to the nature and origin of the Force whose existence had thus been exhibited to them, and it is not surprising that wide differences of opinion should have prevailed among us as to its source. For my own part, I resolved to hold my judgment in suspense, and to continue the investigation with a view to learn, if possible, the causes of the phenomena I had so unexpectedly witnessed. Accordingly, the experiments were resumed under new conditions and with further tests.

It would be tedious and needless to describe fully each of these experiments. Those of the sub-committee are fully set forth in

the appendix to the published report(*a*) of the Dialectical Society, to which the reader is referred. I will merely state briefly the most interesting results of these investigations, premising that all but three of them were made with *unpaid and unprofessional* Psychics.

1. The hand of the Psychic being held over it, a musical box upon the table untouched turned half round by four movements.

2. A sheet of paper was suspended by one corner from a pin which the Psychic held at the ends between the thumb and fingers, so that the hand could not touch the paper. Many taps, as if made with the point of a needle, were distinctly heard upon the paper.

3. The sounds frequently seemed to be directed by intelligence. They were made often in pursuance of and in answer to requests —as that so many blows should be struck, that the tappings should beat time to music, that they should be loud or soft, quick or slow.

4. So also, in like manner, the motions of the table, when untouched as well as when touched, were in exact accordance with requests, such as that it should tilt on this side or on that so many times. This was so frequent an occurrence that it was impossible to attribute it to accidental coincidence. So far from obedience being rare, as some scientists have conjectured, failure was the rare exception.

5. Occasionally the phenomena continued after the departure of the Psychic from the room, but in such cases they gradually diminished in power until they ceased entirely.

All the above phenomena were witnessed by the Investigation Committee of the Dialectical Society in the course of their experiments. The following experiments were witnessed by myself elsewhere.

Experiment I.

The next experiment was with the same Psychic, in the house of Dr. Edmunds, with a dining table of unusual weight and size. The same test, by turning the backs of the chairs to the table and the experimentalists kneeling upon them, produced the same results, but to a much greater extent than we had before witnessed. In that position of the entire party, a heavy dining table moved six times—once over a space of eight inches at a swing. Then the party, holding hands, stood in a circle round the table, at the distance from it, first, of two feet, then of three feet, so that con-

(*a*) *Report of the Committee of the London Dialectical Society, on the asserted Phenomena of Spiritualism*, p. 407 (Longman and Co.). A cheap edition, at 5*s*. 6*d*., has since been published by Burns, Southampton-row.

tact by any person present was physically impossible. In this position, the table lurched four times, once over a space of *more than two feet*, and with great force. The extent of these movements without contact will be understood when I state that in the course of them *this ponderous table turned completely round*, that is to say, the end that was at the top of the room when the experiment began was at the bottom of the room when it concluded. The most remarkable part of this experiment was the finale. The table had been turned to within about two feet of a complete reversal of its first position, and was standing out of square with the room. The party had broken up, and were gathered in groups about the room. Suddenly the table was swung violently over the two feet of distance between its then position and its proper place, and set exactly square with the room, literally knocking down a lady who was standing in the way, in the act of putting on her shawl for departure. At that time *nobody was touching the table*, nor even within reach of it, except the young lady who was knocked down by it.

Experiment II.

The next experiment was with another Psychic, in another place, but at the house of a personal friend, so that I have the best assurance that there could have been no such pre-arrangement of mechanism in the room as would have been necessary to produce the effects I describe.

It was a double drawing-room, in one of which was a table of considerable weight. The Psychic (a Lady who was *unpaid*, but known to be a Psychic), was taking tea in one room, and I had gone with three friends—one of whom had never before witnessed the phenomena—into the other room to look at some pictures. While we were thus engaged, very loud sounds, as of violent blows, came from a large loo table, which stood alone in the centre of the room—*nobody being near it*. We turned to look at the table, and untouched it tilted up almost to an angle of 45°, and continued in that position for nearly a minute. Then it fell back. Then it repeated the movement on the other side. None of us were standing within five feet of it at that time. The room was well lighted with gas. There was no cloth upon the table, and all beneath it was distinctly visible. Only four persons were in the room, and no one touched it, nor was near enough to touch it had he tried. The Psychic was six feet from it. Seeing this I said in jest, "Will you come to me?" To my amazement it came, crossing the floor for a space of seven feet. Almost doubting my senses, I said, "You have done so much, oblige me by going to that gentleman," pointing to a friend who was standing on the other side of the room nearly ten feet from me. To complete my astonishment, it complied with my request and went. It glided

over the carpeted floor of the drawing-room. Four persons were in the room, and witnessed this phenomenon.

Experiment III.

Alterations in the weight of tables and other furniture have been frequently exhibited. Bidding the table to be light, a finger lifted it; the next moment, bidding it to be heavy, the entire force of the body was required to raise it from the floor. It was, however, suggested by myself and others who were engaged in the *scientific* investigation of the phenomena of Psychic Force, that possibly this change in the weight of the subject of the Force might be merely in our own sensations, and not an actual change in the gravity of the wood or the operation of any pressure upon it. To test this, a weighing machine was constructed with a hook to fix to the table, the index accurately marking the weight of whatever was attached to it. Applying this machine to the table and other bodies, we found that the change was really in themselves, and not sensational merely, as we had suspected. This simple experiment was tried so often, and with so many precautions, as to establish it beyond doubt. The weights varied at every trial, but all proved the reality of the Force that was operating. One instance will suffice. Weighed by the machine, the normal weight of a table, raised from the floor 18in. on one side, was 8lb.; desired to be light, the index fell to 5lb.; desired to be heavy, it advanced to *eighty-two* pounds; and these changes were instantaneous and repeated many times.

Experiment IV.

Not only is motion communicated to the table or other article of furniture where the Psychic is, but everything within some definite, though as yet undefined, distance from the Psychic appears to be subjected to the Force. The smaller furniture of the room is frequently attracted to the place at which the Psychic sits. Chairs far out of reach and untouched may be seen moving along the floor in a manner singularly resembling the motion that may be observed in pieces of steel attracted by a magnet, which rise a little, fall, move on, stop, until fully within the influence of the magnetic force, and then jump to the magnet with a sudden spring. The chairs that are so often seen to come across a room to the Psychic usually approach by irregular motions, gliding for a short space, stopping, moving, and so on, until fully within the influence, and then the last movement is by a rapid jump. Larger articles of furniture are attracted in like manner according to weight; chairs move easily the whole length of a large room; a sofa will advance 2ft. or 3ft. only. Plainly the Force is limited in power; it can move only a certain *weight;* bulk is no impediment to its exercise. Nor is this phenomenon

at all dubious to the spectator. It cannot be fanciful; it is not a delusion, However it may be done, *the fact* is indisputable that it *is* done. The chairs start from the wall against which they are placed; the sofa rolls forward; the smaller tables approach. This occurs in the light of gas, in the private room of any person who makes trial of it, is seen by all, and often gives inconvenient proof of the fact by encompassing the seated circle. At one experiment six drawing-room chairs were attracted from the other side of the room over distances ranging from 6ft. to 10ft., and thrust themselves against the circle; two large easy chairs advanced 3ft.; a large settee advanced about 2ft. No person was near either of them. In another experiment in my own lighted drawing-room, as the Psychic was entering the door with myself, no *other person being there*, an easy chair, of great weight, that was standing 14ft. from us, was suddenly lifted from the floor, and drawn to him with great rapidity, precisely as a huge magnet would attract a mass of iron.

From the above experiments it is not unreasonable that they who witnessed them thoughtfully should have concluded—

I. That there is a force other than the Forces of Nature hitherto recognised. But whether it is the one Force which is said to change merely its form according to the substance in which it is exhibited, or a Force entirely distinct from the known Physical Forces, and subject to other laws associated with vitality, there is not as yet sufficient evidence to determine.

II. That this Force produces positive sounds and motions in solid bodies brought within the radius of its influence.

III. That this Force is found to operate at an undefined, but not indefinite, distance from the human body.

IV. That it is developed (so as to be perceptible to the senses by its effects) in certain persons only, to whom the name of Psychics has been given.

V. That Psychics are not distinguished from other persons by any perceptible peculiarity of mental or bodily organisation. They are of either sex, of all ages, of all degrees of intelligence, of varying physical powers, of all degrees of bodily health, of all countries and races.

VI. That there is some, but not sufficient, evidence, that the power of a Psychic is a special faculty (such as is a genius for music, poetry, &c.) and that it is often inherited.

VII. That it is probable (but not yet proved), that this Force proceeds from, or is intimately associated with, the nerve organisation, and is possessed by all human beings in a greater or less degree, but in their ordinary conditions producing no external effects perceptible by the senses; that when possessed to an extraordinary extent, this Force is projected beyond the body, and causes motions and sounds in the objects permeated by it, or upon which it impinges.

VIII. That there is some, but not yet sufficient, evidence, that Psychic Force, and what physiologists have termed "vital force," and Dr. Richardson the "nerve ether," are identical.

IX. That in some manner, as yet not investigated and therefore not ascertained, a concurrence of the Psychic Forces of several persons promotes the activity of the Force exhibited by the Psychic.

X. That it is as yet undetermined whether it is the possession of Psychic Force in a rare degree that makes itself perceptible by its operation upon solid bodies, or if a Psychic is only a person who has not in himself a greater amount of the Force than others, but who possesses the power of attracting the combined Psychic Forces of the persons who are within a certain undefined radius from himself.

XI. That the Psychic Force is controlled and directed by the intelligence of the Psychic. That this intelligence frequently acts without consciousness by the Psychic. But if such action is that of the brain, or of an individuality distinct from the brain and incorporeal, there is as yet no sufficient evidence.

XII. That the condition of the Psychic during such unconscious direction of the Force is generally similar to, if not identical with, that of the somnambulist, whose intelligent acts are the result of unconscious action of the brain, which not only dreams, but causes the patient to act the dream.

Here is Evidence which, in any Court of Justice in the world, would be held to be conclusive proof of *the fact* asserted by the many witnesses whose honesty and capacity nobody can question. If so palpable a fact as the motion of an untouched table cannot be received on the testimony of so many observers, specially charged with the duty of noting and testing, truth in any matter must be unattainable and treatises on evidence are a mockery. All the facts of Science must equally be denied, for not one of them is established by better evidence than is this fact of motion without contact. To the unanimous attestation of so many well qualified examiners, it appears an impertinence to add the testimony of an individual. But it may, perhaps, be permitted to me to say that, since the publication of the report of the Society, I have pursued the inquiry with diligence and care, and I have seen and preserved a written record of the apparently automatic motion of heavy furniture no less than *fifty-four* times, in circumstances that preclude the possibility

of deception or illusion. The following is one specimen selected from many.

EXPERIMENT V.

On Tuesday, June 2, 1873, a personal friend, a gentleman of high social position, a graduate of Oxford, came to my residence in Russell-square to dress for a dinner party to which we were invited. He had previously exhibited considerable power as a Psychic. Having half-an-hour to spare, we went into the dining-room. It was just six o'clock and of course broad daylight. I was opening letters; he was reading the *Times*. My dining table is of mahogany, very heavy, old-fashioned, six feet wide, nine feet long! It stands on a Turkey carpet, which much increases the difficulty of moving it. A subsequent trial showed that the united efforts of *two strong men standing* were required to move it one inch. There was no cloth upon it, and the light fell full under it. No person was in the room but my friend and myself. Suddenly, as we were sitting thus, frequent and loud rappings came upon the table. My friend was then sitting holding the newspaper with both hands, one arm resting on the table, the other on the back of a chair, and turned sidewise from the table, so that his legs and feet were not under the table but at the side of it. Presently the solid table quivered as if with an ague fit. Then it swayed to and fro so violently as almost to dislocate the big pillar-like legs, of which there are eight. Then it moved forward about three inches. I looked under it to be sure that it was not touched; but still it moved and still the blows were loud upon it.

This sudden access of the Force at such a time and in such a place, with none present but myself and my friend, and with no thought then of invoking it, caused the utmost astonishment in both of us. My friend said that nothing like it had ever before occurred to him. I then suggested that it would be an invaluable opportunity, with so great a power in action, to make trial of *motion without contact*, the presence of two persons only, the daylight, the place, the size and weight of the table, making the experiment a crucial one. Accordingly we stood upright, he on one side of the table, I on the other side of it. We stood two feet from it and held our hands eight inches above it. In one minute it rocked violently. Then it moved over the carpet a distance of seven inches. Then it rose three inches from the floor on the side on which my friend was standing. Then it rose equally on my side. Finally my friend held his hands four inches over the end of the table, and asked that it would rise and touch his hand three times. It did so; and then, in accordance with the like request, it rose to my hand held at the other end to the same height above it and in the same manner.

With such conclusive proofs before me it is impossible to doubt that there is *some Force*, whatever it may be, *by which heavy bodies are moved without muscular contact or effort*. What it is, whence it comes, and how it operates in the production of these results, are questions in no way affecting the fact. These problems it is the province of science to solve by experiment, when the fact itself is *proved*.

That there *is* a Force by which heavy bodies are moved without muscular contact is established by such an overwhelming mass of evidence that it would be taken as confirmed beyond dispute, had the subject not been one upon which a strange mass of prejudice has been concentrated.

But mechanical proofs have been had of the existence of a Psychic Force, and it has been subjected to positive *measurement*. I cite from the same work the remarkable experiments by which this important fact was verified.

EXPERIMENT VI.

It is a peculiar feature of this controversy that none of its opponents have witnessed the phenomena they deny. They endeavour to answer a *fact* by an argument. But it was desired to leave no objection unanswered, however foolish and frivolous; and therefore some *mechanical* test was sought, by which the presence and power of the Force, if real and not ideal, would be exhibited by metal and wood, which could be the subject of no self-delusion and would register the results truly, without prejudice, favour, or affection. Accordingly, an ingenious apparatus was devised by Mr. Crookes, F.R.S., designed to exhibit the amount of any force exercised upon a board so placed that no muscular force, however great, applied to one end of it, could produce the slightest pressure on the other end. That it did not so, in fact, was proved by this, that when others than the Psychic threw into it the utmost power of their arms, they produced not the slightest motion of the index that marked the degree of pressure upon the board.

Further, to make assurance doubly sure, it was tried in *five* ways:

First, the Psychic placed his finger on the end of the board, within the fulcrum, where no amount of pressure could affect the board or move the index.

Second, he placed one finger of each hand in a vessel of water

standing upon the fulcrum, which made pressure on the board *scientifically* impracticable.

Third, he did not touch the apparatus at all, but sat at some distance from it, his hands and feet being held, which made muscular pressure upon any part of it *physically* impossible.

Fourth, the same experiments were tried with another Psychic, and with the same result.

Fifth, the same experiments were tried with other persons, not being Psychics, and no effect whatever was produced.

In these experiments the presence of the Psychic Force was distinctly proved, not by the fallible senses of the spectators, but by the infallible, because unimpassioned, evidence of wood and metal.

Dr. Huggins, F.R.S., and myself were requested to attend the trial of the experiments, as witnesses, merely to attest the honesty and accuracy of the proceedings.

Having witnessed them, we certified to Mr. Crookes our own conviction that all had been fairly done, and that the results were shown as he had stated. Dr. Huggins reserved all opinion as to the causes of the phenomena, and I stated my conviction that they were purely Psychic, and in no way produced by Spirits of the Dead.

Fully to appreciate these experiments and their results, the reader should clearly understand with what object they were devised.

Mr. Crookes, F.R.S., had witnessed many of the experiments detailed in the preceding pages, by which motion without material contact was demonstrated. He had examined them with the scepticism that is the proper attitude of Science towards new and strange facts, until they are established by repeated trials and demonstrative proofs. Having anxiously applied to them the same amount of cautious test as he would have required for a new fact in chemistry, he was satisfied that *motion without material contact* was not the unreality he had anticipated. But, although informed by all his senses that it was a truth, he knew that the senses were subject to delusion, and, therefore, he sought anxiously for some test incapable of self-deception. *Metal* and *wood*, he argued, have no emotions; *they* cannot be biologised; *they* have no imagination; *they* neither deceive themselves nor others; *they* will not only exhibit the presence of any Force that may exist, but measure the amount of it.

The instrument was the result of these reflections,

I extract Mr. Crookes's description of the apparatus:

It consisted of a mahogany board, 36in. long by 9½in. wide and 1in. thick. At each end a strip of mahogany 1½in. wide was screwed on, forming feet. One end of the board rested on a firm table, whilst the other end was supported by a spring balance hanging from a substantial

tripod stand. The balance was fitted with a self-registering index, in such a manner that it would record the maximum weight indicated by the pointer. The apparatus was adjusted so that the mahogany board was horizontal, its foot resting flat on the support. In this position its weight was 3lb., as marked by the pointer of the balance.

Two knobs were screwed to the board on which the fingers were placed, and the foot or fulcrum of the board was immediately below them, so that no amount of pressure on the knobs could produce the slightest pressure on the board.

The Psychic with whom the first series of experiments was tried was Mr. Home. The only persons present were Mr. Crookes, F.R.S., Dr. Huggins, F.R.S., the brother and assistant of Mr. Crookes, and myself; the place was a private room in Mr. Crookes's residence. The apparatus was not seen by nor explained to the Psychic before the experiment was commenced. The room was well lighted with gas. I sat on one side of the Psychic, closely watching him. Dr. Huggins sat on the other side of him, keeping equally close watch upon the apparatus. Mr. Crookes took notes of the motions of the index. The others stationed themselves near to us, as additional observers to secure the most entire accuracy. The Psychic could not possibly have moved a finger from the knob on which it was laid without being seen by one of the three pairs of keen eyes which were purposely fixed upon him, watching.

Such being the position of the party, the experiment commenced, and I extract the result from the report of Mr. Crookes.

Mr. Home placed the tips of his fingers lightly on the extreme end of the mahogany board which was resting on the support, whilst Dr. (Huggins) and myself sat, one on each side of it, watching for any effect which might be produced. Almost immediately the pointer of the balance was seen to descend. After a few seconds it rose again. This movement was repeated several times, as if by successive waves of the Psychic Force. The end of the board was observed to oscillate slowly up and down during the experiment.

Mr. Home now of his own accord took a small hand-bell and a little card match-box, which happened to be near, and placed one under each hand, to satisfy us, as he said, that he was not producing the downward pressure. The very slow oscillation of the spring balance became more marked, and Dr. (Huggins), watching the index, said that he saw it descend to 6½lb. The normal weight of the board, as so suspended, being 3lb., the additional downward pull was therefore 3½lb. On looking immediately afterwards at the automatic register, we saw that the index had at one time descended as low as 9lb., showing a maximum pull of 6lb. upon a board whose normal weight was 3lb.

In order to see whether is was possible to produce much effect on the spring balance by pressure at the place where Mr. Home's fingers had been, I stepped upon the table and stood on one foot at the end of the board. Dr. (Huggins) who was observing the index of the balance, said that the whole weight of my body (149lb.) so applied only sunk the index

1½lb., or 2lb. when I jerked up and down. Mr. Home had been sitting in a low easy-chair, and could not, therefore, had he tried his utmost, have exerted any material influence on these results. I need scarcely add that his feet as well as his hands were closely guarded by all in the room.

The board was arranged perfectly horizontally, and it was particularly noticed that Mr. Home's fingers were not at any time advanced more than 1½in. from the extreme end, as shown by a pencil-mark, which, with (Dr. Huggins's) acquiescence, I made at the time. Now, the wooden foot being also 1½in. wide, and resting flat on the table, it is evident that no amount of pressure exerted within this space of 1½in. could produce any action on the balance. Again, it is also evident that, when the end furthest from Mr. Home sank, the board would turn on the further edge of this foot as on a fulcrum. The arrangement was consequently that of a see-saw, 36in. in length, the fulcrum being 1½in. from one end; were he therefore to have exerted a downward pressure, it would have been in opposition to the force which was causing the other end of the board to move down.

The publication of these experiments in the *Quarterly Journal of Science* caused, as might have been expected, much excitement in the scientific world as well as among the general public, and many criticisms were made upon them. Some objections were offered to the sufficiency of the tests and were thus answered by Mr. CROOKES.

The objection has been raised that announcements of such magnitude should not be made on the strength of one or two experiments hastily performed. I reply that the conclusions were not arrived at hastily, nor on the results of two or three experiments only. In my former paper (*Quarterly Journal of Science*, p. 340), I remarked:—"Not until I had witnessed these facts some half-dozen times, and scrutinised them with all the critical acumen I possess, did I become convinced of their objective reality." Before fitting up special apparatus for these experiments, I had seen, on five separate occasions, objects, varying in weight from 25lb. to 100lb., temporarily influenced in such a manner, that I and others present could with difficulty lift them from the floor. Wishing to ascertain whether this was a physical fact, or merely due to a variation in the power of our own strength under the influence of imagination, I tested with a weighing-machine the phenomenon on two subsequent occasions when I had an opportunity of meeting Mr. HOME at the house of a friend. On the first occasion, the increase of weight was from 8lb. normally, to 36lb., 48lb., and 46lb., in three successive experiments tried under strict scrutiny. On the second occasion, tried about a fortnight after, in the presence of other observers, I found the increase of weight to be from 8lb. to 23lb., 43lb., and 27lb., in three successive trials, varying the conditions. As I had the entire management of the above-mentioned experimental trials, I employed an instrument of great accuracy, and took every care to exclude the possibility of the results being influenced by trickery, I was not unprepared for a satisfactory result when the fact was properly tested in my own laboratory. The meeting on the occasion formerly described was, therefore, for the purpose of confirming my previous observations by

the application of crucial tests, with carefully-arranged apparatus of a still more delicate nature."

Mr. CROOKES modestly stated at the same time that, though new to this country, the existence of Psychic Force was not a new discovery. Others had preceded us.

I am informed by my friend, Professor Boutlerow, that during the last winter he tried almost the same experiments as those here detailed, and with still more striking results. The normal tension on the dynamometer being 100lb., it was increased to about 150lb., Mr. Home's hands being placed in contact with the apparatus in such a manner that any exertion of power on his part would diminish, instead of increase the tension.

In 1854, Count Agenor de Gasparin published a book, giving full details of a large series of physical experiments which he had tried with some private friends in whom this Force was found to be strongly developed. His experiments were very numerous, and were carried on under the strictest test conditions. The fact of motion of heavy bodies without mechanical contact was demonstrated over and over again. Careful experiments were made to measure the force both of gravitation and of levitation thus communicated to the substances under trial, and an ingenious plan was adopted by which Count de Gasparin was enabled to obtain a rough numerical estimate of the power of the Psychic Force in each individual. The author finally arrived at the conclusion that all these phenomena are to be accounted for by the action of natural causes, and do not require the supposition of miracles nor the intervention of spirits or diabolical influences. He considers it as a fact, fully established by his experiments, that the will, in certain states of the organism, can act at a distance on inert matter, and most of his work is devoted to ascertaining the laws and conditions under which this action manifests itself.

In 1855, M. Thury, a Professor at the Academy of Geneva, published a work, in which he passed in review Count de Gasparin's experiments, and entered into full details of researches he had been simultaneously carrying on. Here, also, the trials were made with private friends, and were conducted with all the care which a scientific man could bring to bear on the subject.

The conclusions of M. THURY were very nearly those at which the *scientific* experimentalists in England have arrived. They are worth citing here.

1st Proposition: In the ordinary conditions of the body the will only acts directly within the sphere of the organism. 2nd Proposition: Within the organism itself there are a series of mediate acts. 3rd Proposition: The substance on which the mind acts directly—the *psychode*—is only susceptible of every simple modification under the influence of the mind; explanations which are based on the Intervention of Spirits. M. Thury refutes all these explanations, and considers the effect due to a peculiar substance, fluid, or agent, pervading, in a manner similar to the luminiferous ether of the scientist, all matter, nervous, organic, or inorganic—which he terms *psychode*. He enters into full discussion as to the properties of this state or form of matter, and proposes the term *ectenic*

force (ἐκτίνια, extension), for the power exerted when the mind acts at a distance through the influence of the psychode.

There is likewise another case on record in which similar test experiments were tried, with like results, by a thoroughly competent observer. The late Dr. Robert Hare, in one of his works, gives an engraving of an apparatus very similar to my own, by which the young man with whom he was experimenting was prevented from having any other communication with the apparatus except through water; yet, under these circumstances the spring balance indicated the exertion of a force equal to 18lb. The details of this experiment were communicated by Dr. Hare to the American Association for the advancement of science, at the meeting in August, 1855.

Objection having been made that Mr. Home might possibly, unnoticed by us watchers, have slid his fingers beyond the fulcrum of the board upon the board itself, and so produced the Force whose pressure was marked by the index, Mr. Crookes instituted a second series of experiments, with still more delicate instruments, and with still more decisive results. The Force was now exhibited *without contact by the Psychic*, thus effectually disposing of *that* doubt. At this trial Mr. Home sat at a distance of *two feet* from the apparatus, his hands and feet being held by the persons present. This also was in full light of gas. The index marked a pressure of several pounds, though it was standing alone in the room, untouched by any person. In another experiment the fingers were placed in a glass of water set upon the fulcrum, which also would make access to the board by those fingers impossible.

It will interest the reader to learn that the discovery by Mr. Crookes of the Radiometer—still a scientific problem—was due to these experiments in Psychic Force. We had suggested as a test, the suspension of some light substance *in vacuo*. Small bodies were suspended in exhausted tubes. As the finger approached the glass they were seen to move, the motion varying with different persons. Our first conclusion was that this was due to the Psychic Force. But trying with inorganic substances some of these were found to cause like movements, and where heat and flame were present the motions were especially powerful. This led by a series of ingenious experiments to the puzzling of the entire scientific world by the construction of the radiometer.

CHAPTER VI.

THE PSYCHIC.

A PSYCHIC is a person whose organisation possesses an extraordinary amount of that force, whatever it be, by which the motions of solid bodies are produced, as described in the last chapter.

The Force itself is common to all human beings, in greater or less degree, for it is that by which the Conscious Self (or Soul) directs the motions of the material mechanism. Various names have been given to it, according to the conceptions of various physiologists and psychologists as to its source and seat. By some it is called *vital* force; that is, the life itself. Others have recognised it as the *nerve* force—the force that causes all the motions of the body. Dr. RICHARDSON contends that this nerve force extends beyond the extremities of the nerves, enveloping the body with a nerve aura, that radiates to various distances, in various persons, according to constitutional tendency.

The existence of such a nerve aura explains, in his opinion, the sympathies and antipathies that so often affect us, as we suppose, instinctively. To this is attributed also many of the "supersensuous perceptions" which most of us must have experienced. This is the force to which I have ventured to give the name of *Psychic Force*, to distinguish it from the *physical* forces, which it in no way resembles, and from the *organic* force or forces,—if these be not the same as the vital force and the nerve force.

Undoubtedly it resembles those organic forces in many of its features. But it differs from them in one most important particular. *Psychic Force is an intelligent force*—that is to say, it does the work of intelligence—which the other forces do not. The suggestion is not unreasonable that, if Soul exists, it must express itself upon the material world by some force. May not this force, so intimately associated with Intelligence, be the force that proceeds from the Conscious Self (or Soul)? There is at least sufficient of probability in the suggestion to justify the giving to this intelligent directing force the name of *Psychic* (or *Soul*) Force. A person possessing this in excess, and with whom, therefore, it may probably be projected beyond the surface of the body, may be appropriately termed a PSYCHIC. (*a*)

A Psychic may be of either sex, of any age, of any degree of intelligence, of any complexion, of any physique. There is nothing in external appearance to indicate the possession of the power. It is unknown even to its possessor. It is always discovered by an accident. It appears to be in no way a *mental* faculty, nor to be dependant in the least on mental capacity. The foolish are the subjects of it as often as the wise, the young as the old, the infant, the child, the youth, the man, the woman. One of the best Psychics I have known was a child in arms. It was enough to bring it within a few yards of the table to cause active motion. That the nurse was not the Psychic was proved by this, that by whomsoever the child was carried the effect was the same. Boys and girls of tender age are often possessed of great psychic power, which gradually declines and disappears after puberty.

The Psychic has no consciousness of any *mental* action

(*a*) The name given to such a person by the Spiritualists is "a Medium," and by that name he is commonly designated. But he was so termed on the assumption that he was a communicant between the living and the dead, thus begging the whole question. A neutral name was necessary to the scientific inquirer, and "*Psychic*" meets the requirement.

in the exercise of the force. He cannot summon it nor dismiss it by his Will. He cannot direct it by any desire or command. When great power is being exercised, a convulsive quivering agitates his limbs; but this is unattended with any painful or even disagreeable sensation. Apparent consciousness often continues during the phenomena and he converses freely and sensibly. But when the force is most powerful, it is always attended by unconsciousness; in fact, it is a state of trance. Long continuance of the abnormal condition is followed by a considerable amount of nervous exhaustion.

Psychics are to be found in almost every household, equally among all classes and conditions, from the highest social status downward. It is a vulgar error that assumes the existence of professional Psychics only. The private persons who possess this faculty, and exercise it only in their homes, are a hundredfold the number of those who practice Psychism for profit.

My own circle of acquaintances is not very extensive, but I have known among them no less than *thirty-two* Psychics. The position and callings of a few upon my list will show the improbability of imposture; and it must be remembered that if but one of the array be genuine, Psychism is proved.

That list of thirty-two comprises, *inter alia:* two Clergymen, four Barristers, three Scientists, two Bankers, an eminent Artist, two Merchants, a Peeress, the wife of a Baronet, of a Physician, of an high Ecclesiastical Dignitary; the children of an M.P., of a General in the Army, of a Lady of title, of a distinguished Artist. The others are scarcely less in social rank, and are equally respectable and reputable. It is scarcely credible that all of these, whose characters in every relation of life are unimpeached, should be not merely impudent impostors, but possessed of the skill and machinery of MASKELYNE and COOKE, wherewith to conduct their impostures.

All attempts to identify a Psychic by some peculiarities of aspect, temperament, or mental condition have failed utterly. When we have lighted upon some supposed

characteristic common to two or three, another is presented who contradicts the conclusion. Contrary to the general belief, as many men as women are Psychics.

This force, like all other faculties, increases with exercise, not in power merely but also in facility. It is irregular in its action. It varies with the condition of health. It is much affected by weather. It sometimes departs entirely for weeks, months, and even years, and then suddenly returns in greater power than ever; and both its going and coming are without an assignable cause. The best Psychics are the most capricious in this respect.

Psychic Force frequently comes at unexpected and often inconvenient times. With a lady of my acquaintance it will make itself awkwardly audible in church, in a railway carriage, when walking in the street. A shower of rappings comes upon the floor she is crossing; upon the gravel path, as she is strolling in the garden; upon the ceiling, walls, and doors of the room in which she sits, and this in the presence of company. Her dinner table is sometimes kept in continual motion, so that it is difficult to prevent the plates and glasses from being overthrown. This will often continue throughout the meal, more to the amazement than the comfort of unaccustomed guests.

Psychics, as I have said, are by no means rare. Large numbers are known to their friends, and to them only, as possessing this faculty. There are few families among whom a Psychic might not be found by patient trial. The process of discovery is very simple. A party, not less than four nor more than eight, old and young of both sexes, should sit round an ordinary drawing room table, place their hands upon it and spend an hour in conversation or music. Nothing may result for a week, or a fortnight, or longer. But persevere. The same party should assemble, if possible; but no stranger should be admitted while the experiment is being tried. After more or less of waiting, faint sounds of creaking will be heard in the fibres of the wood. These will grow in

number and intensity until they become positive and loud blows. The sounds are usually preceded and accompanied by motions of the table: at first a slight quivering, scarcely perceptible—then a kind of shuddering, so rapid that no muscular effort could probably produce it. Then come risings of the table from the floor, now on this side, now on that, now at one end, now at the other. When the force is fully developed, the table rises entirely from the floor, it may be an inch, it may be a yard, sometimes so high as to be carried over the heads of the sitters and is set down outside the circle. These sounds and motions may be questioned and will be found to be directed by *Intelligence*. Ask questions and they will be intelligibly, if not always intelligently, answered by any code of signals proposed at the beginning of the experiment. The usual course is to suggest that three blows shall mean "Yes," two blows "Doubtful," and one blow "No." Answers to questions will be thus given, sometimes by blows and sometimes by motions of the table. In either case, they are not slight and doubtful expressions of the force. They are audible and visible to all and their meaning is plain to all.

The ready answer which presents itself, to those who have never tried the experiment, is that which FARADAY suggested—unconscious muscular action. It was my own explanation of it, until repeated experiment assured me of its insufficiency. Sixteen hands upon a table might apply to it great muscular force, if each hand exercised only a pressure so small as to be imperceptible to the sitter, weary with keeping it in a somewhat constrained position. I thought I detected such a contraction of my own muscles. So long as but a finger touched the table or other solid body, I was not *assured*, however difficult the supposition, that the sounds and motions were not produced thus. It was not until I had witnessed the like motions and heard the same sounds *without contact by any person*, and this so often, under such tests, in such varied conditions and in so many localities, as to make delusion impossible and preclude the possibility of

mechanical contrivances, that I was *compelled, as a lover of truth,* to abandon the theory to which I had clung with the tenacity of a profound scepticism and acknowledge that the phenomena were the product of some hitherto imperfectly recognised force, which was in some manner associated with the human Intelligence.

This is precisely what may be learned in almost any family pursuing the investigation in its own home and with its own members, in the manner above stated.

It is sometimes difficult to ascertain who among the persons present is the possessor of the power to which these interesting and most instructive phenomena are due. "The Psychic" of the party may be certainly ascertained thus:

The persons present should successively leave the room. The cessation of the sounds and motions will speedily indicate to whose presence they were due. They may not cease instantly, for motion sometimes lingers, with decreasing power, after the Psychic has quitted the circle, apparently confirming the conclusion that the force accumulates in the solid body to which it is applied, as the electric force is accumulated in the electric jar. Sometimes it occurs that two or more Psychics are present and then, if one departs, the action will continue as of course. The presence of two or more will be discovered by the same process, if the experiment of successive removals be repeated two or three times in a different order.

When once the psychic faculty is found to be possessed, in however slight a degree, it will certainly be improved by practice and develope itself, not merely with greater power, but in a greater variety of forms. For this purpose, the Psychic should sit as often as he conveniently can, with the same circle and in the same room, and strongly desire (*mentally*, not by expression) that, instead of a repetition of phenomena already produced, others may be exhibited. Probably desire promotes the unconscious psychic action that appears to direct the force.

This *development* of the psychic faculty by practice

seems to me very antagonistic to the theory that attributes these phenomena to the presence of Spirits of the Dead. It is difficult to accept for *them* a necessity for education. But that necessity is entirely consistent with the theory that attributes the psychic action to a force proceeding from the non-material part of the Mechanism of Man—a faculty developed only in persons having a special organisation and under special conditions.

Dr. CARPENTER and others meet the asserted phenomena and the profoundly important conclusions which, if true, they establish, not by suggesting other sources of them, but by asserting that all Psychics, without exception, are impudent impostors—for it cannot be too often repeated that if any one of the hundreds of thousands of cases that have been reported be true, the *one* phenomenon so found to be is as important to science and as much demands investigation as if all had been true. The question is not if, among the legion of cases, there may not be some or even many impostures, but if there be *any genuine*. The value of the genuine few is in no degree diminished by the falsity of the fraudulent many.

Admitting, then, a large amount of imposture by pretended Psychics and of self-delusion by incautious spectators, it seems to me impossible to conclude that all, without a single exception, are impostors. Where a profit is to be made by imposition, impostors will always abound, and Dr. CARPENTER will find no difficulty in citing detections and confessions in abundance among the public exhibitors of pretended spiritualistic phenomena which, put together with the ingenuity of an Advocate (whose business it is to make out a case on one side only), will have the aspect of a formidable arraignment. So, on the other side, an Advocate of equal skill could, by presenting the uncontradicted reports of intelligent and competent witnesses and suppressing all the facts that told against him, make an equally plausible case in the affirmative. Dr. CARPENTER is in this matter

not a Judge but an Advocate. Had he assumed the functions of a Judge, which is the proper attitude of true Science towards new facts, or, facts affirmed by credible and competent witnesses, he would have sought to find what the truth is and not merely to prove this or that "prepossession" to be true. For this purpose he would have presented the facts and arguments on *both* sides, produced the witnesses *for* as well as *against*, compared their qualifications as observers, weighed their testimony, and pronounced a judgment formed on a *review of the whole case*. But Dr. CARPENTER has not done this. He has not acted in the true spirit of science, inquiring "what the truth is." He has been content to purchase a cheap popularity by assuming the attitude of an Advocate—a very clever Advocate, indeed, but still only an Advocate, and making a case on one side only—a feat that would have done him infinite credit as a Lawyer, but which, it must be confessed, is not creditable to a Man of Science.

For my own part, I have endeavoured, with what success others must determine, to enter upon and steadily to pursue the investigation of these and other psychic phenomena with a perfectly open mind, without any prejudice or prepossession, with no desire or design to support or to oppose any theory, but with an honest purpose to seek after *the very truth*. My purpose has not been to prove this to be true or that to be false, but to ask simply, "*What is the truth?*" I am as assured as any man can be of himself that I am possessed with no "dominant ideas." I know that I am in the full possession of my senses, and I find that in all the work of active life these senses do not often deceive me. I am assured that what I see *is*. I do not hear what is *not*. My touch tells me truly the forms of things. I believe that I am thoroughly sane,—that I have not even a "diluted insanity"—for in all business matters I am as sagacious and as sensible as the persons with whom I deal in the work of the busy world. Trained by long years of practice in the art of weighing evidence, trying

witnesses, and judging impartially, after looking upon both sides of every question, it was in the character of the Judge, and not in that of the Advocate, advowedly assumed by Dr. CARPENTER, that I ventured to examine for myself, with the assistance of the special qualifications which accident had conferred upon me. Nor have I been content with a few trials. I have accepted nothing as proved until it had been repeated many times, under various conditions, and with the most crucial tests. I have taken nothing upon trust. I have accepted nothing on hearsay. If what I have seen, heard and felt be delusion, then for me, at least, there is nothing real and nothing true. The evidence is precisely the same as that which assures me of the existence of the sun, of the speech of friends, of the being of the pen I hold. That all Psychics are not impostors, and all the phenomena not frauds, I know, because many of those Psychics are incompetent to the work, if they designed or desired fraud. Could a child in arms construct machinery? Could a little boy or girl ten years old, who had never left the nursery, rival in dexterity a conjuror whose art can be learned only by devotion to it of a life? It seems to be forgotten by Dr. CARPENTER and others, who attribute to trickery all that they cannot explain or that is hostile to their prepossessions, that *every* Psychic is not a public nor a paid exhibitor. On the contrary, these are but a small section of them. For one professional or public Psychic there are at least twenty in private life possessing this power, but exercised only in their homes and with their families, or with a few select friends bound to silence. If any ask, "why silence?" the answer is—because of the prejudices that have been diligently fostered by the Materialists, whose degrading doctrine the phenomena, if established, must scatter to the winds. This shrinking from unpopularity, abuse, and persecution is not peculiar to Psychics. When the phenomena of electricity and magnetism were denounced as black arts and dealings with the devil, they were pursued in secrecy by the timid, and martyrdom was

braved only by a few charlatans who incurred risk for the sake of gain. But ladies and gentlemen of our time will not gratuitously subject themselves to abuse and ridicule, and to be called cheats, impostors, rogues and vagabonds, and the rest of the vocabulary of frightened dogmatism. The fact is, as I have stated, that Psychics abound in private life, but unknown to the newspapers.

It is necessary also to state, once for all, that the greater portion of the phenomena recorded in these pages were witnessed by myself; that the Psychics were private persons belonging to the classes named above; that all the experiments were tried in private houses, many in my own rooms, under strict test conditions, where the use of mechanism was impossible, and often where collusion by confederates was excluded by the simple plan of having no person present but myself and the Psychic, and nothing was accepted as proved until it had been repeatedly tried under various conditions.

But Dr. CARPENTER is not content with directly or impliedly calling all Psychics impostors and the phenomena witnessed the result of trickery, which if true would be conclusive, needing no further explanation; but he goes on, needlessly if he is right in that, to contend that all the spectators are under the influence of "prepossession" and of "a dominant idea," and do not see with their eyes, nor hear with their ears. In plain terms they are the dupes, not of the impostor Psychic, but of their own senses.

This is an accusation easily made and difficult to refute. If Dr. CARPENTER tells me he sees a certain curious organic structure in his microscope, and I say to him, "You are deceived. You are prepossessed. You expected so to see and you think you so see. You don't. It's a delusion. Go to." Dr. CARPENTER would find it difficult to prove that his eyes told him true, for if he called others to witness, the same objection would apply to them. They, too, would be under "a prepossession." Critics might apply the same silly argu-

ment to all *his* physiological experiments and annihilate his credit and book together.

But without disputing the disturbing and often the deceiving effects of "prepossession and dominant idea," and admitting frankly the necessity for strictest guard against them in scientific (as indeed in all other) investigations, there are circumstances attending experiments in Psychism that demonstrate the absence of such an influence.

All the persons present see and hear the same things at the same time. No "prepossession" could so bias the imaginations of eight or ten persons that all shall be influenced to see, or think they see, the same thing at the same instant of time.

There is further assurance that the phenomena are not illusion. Even if, by a strange coincidence, so many persons could *imagine* the identical objects of sight or sound—how is it where actual changes have been made in the position of solid bodies—as of chairs, tables, books, and such like? The motion, according to the conjecture of Dr. CARPENTER, is imaginary merely. But there are the chairs actually standing on the table; sofa and pianoforte in the middle of the room; books lying half a dozen yards from the shelves on which they were standing when the experiment commenced. Does Dr. CARPENTER contend that this dislocation of the contents of the room is an imagination also? If so, what does he say as to the parlourmaid, required to restore them to their places? She was not one of the deluded party. She was not present. *She* would not be under the influence of "prepossession." Her only "dominant idea" *she* would express by "Drat them spirits, to give me all this trouble."

Yet again. These phenomena are not presented few and far between. The cases may now be counted by hundreds of thousands, have been witnessed and reported by at least fifty thousand different investigators in every civilised country, comprising among them the most competent scientific observers, the most experienced

triers of testimony, the most calm and unprejudiced of inquirers. Are *all* of these reported cases impostures? Is there no reality in any one of them? Are *all* these witnesses either lying or deluded? Is no one to be relied upon in this, although for all other purposes of life they would be accepted as authorities? Would Dr. CARPENTER be satisfied, if either of these reporters were to leave him a fat legacy, to have it disputed on the ground of "delusion?" The allied facts are by no means answered by showing that *some* are frauds. Fraud always treads upon the heels of fact. If profit is to be made by anything real, shams will assuredly be got up too. But the shams show the reality. There could be no imitation if there were not something to be imitated. It requires no great ingenuity, with a stage at command, by mechanical contrivance to produce a representation of anything whatever. If the beautiful experiments exhibited by Professor TYNDALL at the Royal Institution interested a sufficient number of persons to make imitations of them profitable, MASKELYNE and COOKE would speedily get up an entertainment in which they would show the same apparent results from contrivances of their own. But this would not prove the Professor to be an impostor, nor his experiments tricks and frauds. The true question is, if they or any other person can produce the same results *under the same conditions.* Will MASKELYNE and COOKE come to a private room, in a cab, unaccompanied by any friend, enter that room for the first time when the experiment commences, permit an examination of their persons, or even a change of clothes, suffer strangers to bind and seal them, and *then* produce the phenomena they exhibit on the stage of their own construction, under conditions of their own imposing? If they will do this, it will be admitted that they make out a case against the Psychic phenomena. But if they cannot do so, they stand convicted of being merely mechanical imitators, for that which *they* are invited and refuse to do *every Psychic does!* The experiments with the Psychic are not tried in a

room of his own choosing, with companions of his own selection, where mechanism can be brought, fixed, or used, or where confederates are to be found, or trickery is practicable without the almost certainty of detection. The experiments reported here were not only tried with Psychics who were *not* professional conjurors, having the skill that requires the practice of a whole lifetime, but ladies and gentlemen of social position and character, of the utmost honour and purity, religious, truthful, beloved by their families, respected by their friends, honoured by the world of which they are ornaments. Is it credible that *all* these persons, so excellent in every relationship of life, should, as Dr. CARPENTER contends, suddenly, and for a short time only, when every eye is on them and detection in trickery would destroy their characters for ever, become tricksters, impostors, liars, cheats, charlatans—that they should practise systematic imposition upon the families they love and the friends they regard, and this for no conceivable motive either of profit or fame—deceiving for deception's sake, and with not even a thirst for notoriety, seeing that to be known is to incur, not unpopularity merely, but abuse and ridicule and social persecution.

Not only were the experiments tried with persons of this class, but they were conducted under all conceivable conditions to insure accuracy of observation. They were tried in the houses of the Investigators—most of them in my own—so that I am absolutely certain that no *mechanism* was employed. Confederacy, to which Dr. CARPENTER attributes so much, was, in these cases at least, impossible, for none but the experimentalists were present with the Psychic. The experiments were not hastily tried, nor one only. They were repeated over and over again, under various conditions and with many tests, and none was held to be proved until every conjectured extraneous cause had been precluded by positive test. No facts in science rest upon so large a body of *proofs*. If this mass of evidence fails to show these facts to be true, we must relinquish in despair the

pursuit of all truth—we can say of nothing that "*it is*" —we must come to the nihilist conclusion "that nothing is but what is not." We must close our Law Courts, burn our libraries, abolish our universities, and send our professors to crack stones upon the road. We ought at once to empty our prisons, for every prisoner there has been convicted upon evidence infinitely less in degree of proof than that by which many of the phenomena of Psychism are proved. The facts in Science asserted by Dr. CARPENTER himself cannot produce one-hundredth part of the proof that has verified the facts he denies. The greater portion of these, indeed, rest upon his own unsupported testimony. What would *he* say, or think, if they were called the dreams of "diluted insanity," and *himself* the deluded victim of "prepossession" and "dominant ideas"—that *his* eyes did not see what he says they saw,—*his* ears did not hear what he says he heard—but were made "the fools of the other senses?"

The objection that these phenomena are contrary to the order of nature, and therefore to be denied, whatever the evidence of their being, is almost too absurd for serious answer. But it imposes upon some thoughtless persons and therefore may be briefly noticed here.

It assumes that we know all nature and all the laws of being. The fact is, that we are but upon the threshold of that knowledge. We have but dim glimpses into the scheme of creation; we know only according to the conditions of our own structure. Already the mathematicians are asserting that even their science, so long deemed to be the only necessary truth, is but modified truth after all—it is truth only to human conception, and the very truth is supposed to be quite other than that which appears to us to be truth. We can conceive but of three dimensions of space—length, breadth, and thickness. The mathematicians have arrived at the conclusion that space is probably of *four* dimensions, and that of this fourth dimension we are utterly unconscious, but that its existence renders possible things that to our limited capacities appear impossible, such for instance, as that a

hollow sphere can be turned inside out without fracture, and a knot tied in an endless cord. Thus the phenomena of Psychism, at first appearing to be so contrary to the natural laws, are found by the most recent Science to be possible mathematically and, if so, there is no reason why they should not also be *practically* true.

But more of this hereafter, when the Phenomena themselves have been introduced to the reader.

CHAPTER VII.

THE PHYSIOLOGY OF PSYCHIC FORCE.

THE question now presents itself, whence comes the force that is manifested in the presence of a Psychic?

The evidence is almost conclusive that it is intimately associated with, and probably proceeds from, the human organisation. It is not exhibited save in the presence, or in the near neighbourhood, of a human being. Its more or less of power is usually dependent upon conditions, mental and bodily, of that person. Whatever affects him affects the force in like measure. If Psychic Force exists, it must belong to all human beings in various degrees, Psychics being persons in whom some constitutional peculiarity has caused either an excessive development of the force, or an abnormal action of it, similar to that exhibited by sufferers from disorder of the nerve structure. Hence, perhaps, the advantage found in the union of the Psychic Force of many persons by some such connecting and conducting medium as a table or other article of furniture. Each person present may be supposed to contribute something towards the common fund of the force. Some think that the Psychic attracts and absorbs the force that flows from others and thus increases his own store of force. But of this there is no evidence. All we actually *know* is, that the force is much increased by forming *a circle* (which term must be understood for this purpose to intend, not sitting round a centre, for that is not necessary, but that the persons should stand or sit together, so that, if they were

ranged for the purpose of forming an electric chain, they would transmit the electric force from person to person through the entire chain). This may be accomplished either by actual contact, as by the holding of hands, or by mere touching of the fingers, or by some conducting medium. Hence the preference of a table for experiments with Psychic Force. Wood is apparently a conductor of the force; a table is convenient for sitters and is found in every room. Any other piece of wooden furniture would, however, be equally effective for the reception or conducting of the force, but extremely inconvenient for experiment. The preference for tables, so much ridiculed, is thus accounted for.

The Psychic Force is probably in part contributed by the persons forming the circle, the table operating as a conductor. It has been observed that when a table, or any other solid body, is used for connecting the party, there is no need to join the hands, from which it may be concluded that the conductor conveys the force from person to person and to the Psychic. It appears to perform also the function of collector and condenser of the force. Some evidence of this is found in the fact that the force is rarely manifested until some time has elapsed from the commencement of the experiment. Occasionally the table will exhibit activity in a few minutes; but generally half an hour, or more, passes before any sign of motion appears. The action usually commences faintly in sounds and in movements alike, growing by slow degrees in loudness and power. This seems to indicate that the force is accumulated in the table somewhat as is electricity in the coated jar. But, if so, it does not, like the electric fluid, lie on the surface only. It pervades the fibres of the wood, as is indicated by continual creaking. If the ear, or a stethoscope, be placed upon the table, these sounds are distinctly audible *in the centre of the wood*, as if its fibres were in motion. Thus heard, the sound does not resemble a blow on the surface, but a small explosion within the substance of the wood itself.

Other facts go far to confirm this conjecture as to the conducting and condensing uses of the table. I have observed that a large table is more efficient than a small one. It has been noticed, without a conjecture as to the cause, that a dining table is more easily and powerfully moved than a smaller table, although three or four times heavier. A party of five, who could obtain nothing more than a slight tremor at a small work table, on adjourning to a dining table twenty-fold heavier than was the small table, found it to move actively, while the small structure had scarcely stirred, although the same hands were laid on each in turn. Nor is the power exhibited at all proportioned to the number of the hands; nor is it a necessary condition that the size of the substance to be moved and the number of persons in contact with it should bear any relative proportion. Six hands will often raise from the floor, by one finger lightly laid on the surface, a heavy table upon which twelve hands could produce only a slight tremor.

Another important fact goes far to confirm this. The explanation commonly offered is, that the wood of the table becomes charged with the magnetism (as it is absurdly termed) of the persons who use it, and therefore the phenomena are elicited more speedily than when other solid bodies are employed. There is not the slightest evidence that the force is the Magnetic force; indeed, if it were, it could not be accumulated in the wood of a piece of furniture. This fact of *condensation* of the force is nevertheless obvious on a short acquaintance with the phenomena.

There is, however, some resemblance between the action of the *Psychic Force* and that of Magnetism. The Reader knows that if a bar of iron be laid north and south it will in a certain time become magnetic. Lying in the stream of magnetism that is ever flowing in this direction, the molecules of the iron, by the impact of the passing magnetic force, are gradually deflected until they assume a fixed position in the direction of the magnetic current and thus transmit it more readily. So

it is with the Psychic Force. Proceeding from the human mechanism and passing through the table, furniture, or floor, it is probable that the molecules composing the wood are by frequent impact gradually directed to the position that gives to the force the freest passage.

Thus it comes that the phenomena are more readily reproduced in rooms and with substances that have been frequently subjected to the action of the Psychic Force; in this resembling the Magnetic Force.

It has been asked, with some confidence, *how* any conceivable immaterial force proceeding from organic matter —say the Vital Force—can move solid bodies? Repeating that the question, "*Is it?*" is altogether distinct from the question, "*How* is it?" nothing in this is really more impossible or even improbable than are a thousand other facts in nature of which we have not yet discovered the causes and the conditions, but which we do not therefore dream of denying. The Magnetic Force does the like. *That immaterial* force moves solid bodies. We are wholly ignorant, at this moment, after centuries of investigation, what that Force is. We know not the precise process by which a bar of steel is drawn to a magnet without contact or connection, and even if a solid body be interposed.

Some of the conditions requisite to the exercise of Psychic Force are known. There are others as yet unknown, for its exhibition is increased, diminished or prevented by causes that cannot even be conjectured. The *known* conditions of its manifestation may be briefly stated:

Foremost is the presence of a *Psychic.*

A Psychic is already described as a person possessing some peculiarity of constitution by reason of which the Psychic Force, that is in all of us, in him is either in excess or subject to abnormal development. When so exercised, it appears to attract to itself the Psychic Force of other organisms, directly or by means of some conducting body. Experiment has not yet been sufficiently extensive to permit of a list being made of the substances

that are conductors or non-conductors of this force. Wood is certainly a better conductor than metal, thus differing from the electric force. Some woods are better conductors than others. Silk has been observed to be a bad conductor.

Every living human body appears to produce this force. But no fact is better established than that the force produced by one organism is often antagonistic to the force produced by other organisms. The difference seems to resemble that between positive and negative electricity. The presence of such an organism will always impede, and sometimes prevent, the action of the force. But it is purely a physical, not a mental, antagonism, and often found combined with the strongest *mental* sympathy. The action of the force does not in any degree depend upon belief or scepticism, as commonly supposed. Many of its most ardent believers are physically so antipathetic, from some unknown conditions, that their presence at any experiment impedes or mars it.

The process by which the force of the Psychic is influenced by the psychic forces about him is as yet but imperfectly ascertained. Does his greater force attract to itself their lesser forces and thus increase his power? Such would be the probable conclusion; but other facts appear to negative it. If the force of the Psychic is increased by force attracted from those near him, the force might be expected to increase in some proportion to the number of contributors. The fact is otherwise. Numbers usually diminish instead of increasing the force. An attempt has been made to account for this by the assumption that, as numbers increase, so do the chances of a link of the chain being composed of one of those persons of antagonistic nerve structure described above. Other facts point to the same conclusion. Instances are not uncommon of Psychics whose force is greatest when only two or three are with him. A Graduate of Oxford, my personal friend, who has extraordinary Psychic power, is never so attended by remarkable

exhibitions of the force as when he is sitting with one, or at most with two, friends in the freedom of a *tête-à-tête*.

The force is manifestly affected by whatever affects the bodily or mental health of the Psychic, and I think I have seen the like effect, although in less degree, when one of the persons present is in ill health or suffering mental depression. A cold or a headache will diminish always, and often suspend entirely, the action of the force, even with the most powerful Psychics. A glass of wine or a cup of coffee revives the flagging nerves and restores the force. Great benefit is found to result from occasionally suspending the experiment, breaking the circle, moving about, opening the doors and the windows. The theory of Spirits of the Dead does not explain this. To me it seems abundantly clear that the increase of force following such a pause is due to the new stimulus given to the exhausted organisms of the Psychic and the sitters, by the fresh air, the change of posture and the suspension of brain action.

I have spoken of harmony of mental action among the persons present as being necessary to the action of the force. Music has always an extraordinary influence in promoting this unity. The reason is that music causes a synchronous movement of all the minds present; that is to say, the molecules of the fibres of all the brains move together, and the forces projected from them flowing in like waves, the consequence is harmonious mental motion or emotion. When each brain is employed on a different subject, the molecular motion of each being different, the waves, instead of blending and moving in alliance, mingle, clash, and destroy one another—precisely as do the waves upon water when moved by various impulses, with various powers and velocities.

I do not affirm this solution to be *proved*, but it is suggested as a scientific and sensible explanation of the proved phenomenon. Careful experiment only can determine if it be correct, or what is the true explanation of the fact.

So far there is nothing strange nor improbable in Psychic Force. It appears to be an extremely probable form of exhibition of that special intelligent directing force which undoubtedly is exhibited by the Mechanism of Man. Assuming that the human organism is moved and directed by a force of some kind (and this fact will not be disputed by the most advanced Materialist) there is no *à priori* reason why that force should not operate beyond the extremities of the material structure through which it flows. That such a force *may* be passing, without consciousness of it by the individual or any other person, will not be questioned by those who have learned from Science that motions of matter are incessantly going on about us which our most delicate senses cannot perceive. Who that has not seen would believe that in a large room he cannot strike together two coins so gently that the motion thus made in the atmosphere by the waves of the sound will not be betrayed by the fluttering of a jet of flame? Who is conscious of the thirty or forty thousand waves of ether that strike his eye in a second of time for the production of the sensation he calls a *colour*, or of the difference of a few thousand in number of the waves which produces the sensations he terms different colours? Who, therefore, can doubt that the force that causes the motion of the molecules of which the brain and the nerves are constructed, and directs their action to any object, *may* pass on and be communicated to other nervous systems within some definite distance, and set them in motion, or impinge upon the molecules of which a table is constructed and impart motion to them?

And this, or something of the like nature, is suggested by the characteristics of the phenomena, when carefully examined. The force is not exhibited instantly; it grows by degrees. Apply a stethoscope to the table for a time varying, according to the conditions, from five minutes to two hours. At first, there is no sound. Presently, very slight creakings *in* the fibrous centre (not *on the surface*) of the wood are audible. These grow

gradually louder until they become distinct and definite sounds, wrongly called "rappings," but which more resemble slight explosions, not unlike those of the electric spark when drawn from the conductor of a large machine. These are usually followed by motions, more or less violent, of the table itself. But it is to be noted that the so-called "rappings" and the motions rarely take place at the same moment. One usually ceases while the other is proceeding. The motion itself is not like that produced by mechanical force or by human pressure. It is invariably preceded by *attempts to move*, precisely as is seen with a balloon when on the point of rising and, as it were, hovering between the impulse that sends it up and the force that keeps it down. If the motion be not *onwards*, upon the floor, but an *ascent* from the floor of the entire structure subjected to the force, it does not rise, as when force is applied to certain parts of it only, or as when it is lifted by hands, but it is as if the whole substance of the table had become light and was floating upwards, as does a balloon, simply by overcoming the force of gravitation. Not only does it ascend with a floating movement, but it usually hovers in the air for a while, with a tremulous motion, descending as does a feather or paper. It does not commonly fall with a thump upon the floor. It returns slowly and gently, precisely as a balloon sinks. If it alights upon your foot, it does not crush it, as certainly it would, had it fallen from the same height by reason of the withdrawal of a lifting or supporting hand.

These facts, familiar to all who have examined experimentally, seem to indicate that *Psychic Force* is more or less *antagonistic* to the force of gravity. Certainly it overpowers gravitation. I will hazard another *conjecture*, based on the same phenomenon. May it not be that if, as the most advanced Science asserts, molecules and molecular structure alone are affected by gravitation, while atoms (which compose molecules), and probably other forms of atomic combination, are not subject to the force of gravitation, the province of *Psychic Force*

may be with *atoms* and atomic combinations other than molecules? Is it not reasonably probable that this force permeates and influences that vastly larger realm of nature which is of some atomic structure other than molecular, and to which all molecular structure is but as a grain of sand compared with the bulk of the sun?

Is it not at least conceivable that what we call spirit is *non*-molecular and what we call matter is *molecular?* That gravitation is a force that moves *molecules?* That *Psychic Force* is a force that acts upon non-molecular structure? That these and all other forces are but various forms of *one* Force, as manifested in various operations: *Psychic* when associated with non-molecular or atomic structure—*Gravity* when passing through molecular structure—*Magnetic* when passing through certain combinations of molecules—*Electric* when passing through certain other combinations of molecules—*Heat, Light,* when meeting with certain obstructions in its passage through molecular matter and so manifesting its presence by the impediments? I merely throw out this suggestion for what it is worth. It may serve to give a definite direction to the thoughts of other minds, and this is all I ask for it. I am treating of a department of the Mechanism of Man very imperfectly known and to the shame of Science as yet but slightly investigated. I am, therefore, entitled to answer the objection so often made to *the facts*—(that we are unable to explain them)—by *suggesting* a solution which will at least show that a rational explanation is not impossible, although that here briefly sketched may be erroneous.

Involuntary muscular action will not account for motion without contact, nor for sounds far off. Yet these Psychic sounds are heard on the ceiling, the door, the walls, the gaselier, on distant furniture,—all being beyond reach of any hand or foot.

Another important fact in the Physiology of Psychism is that the motions are always in the direction of the circle

and usually towards the Psychic, as if he or they possessed some power of attraction. Chairs, sofa, pianoforte, tables, advance from their places but invariably towards the Psychic. The utmost space over which this attractive force has been seen to operate, in any experiment tried by myself, was *twelve* feet. A heavy arm chair was moved thus far in my own house, not, however, drawn across the floor, but as if lifted and flung with violence. The next in distance was ten feet. It occurred with a light chair in the house of a friend. For the most part, however, the space over which the attractive force extends rarely exceeds six or seven feet. But I have seen all the pieces of movable furniture, in the private room of a personal friend, advance from their places, the lightest, such as chairs and small tables, crowding in upon the circle, and the larger advancing one, two, or three feet, according to their bulk and weight.

In my own library, a volume of the "Encyclopædia Britannica" was thus attracted, at a distance of *eight* feet from the bookshelf, to the Psychic, who was sitting at the tea-table thus far from it, followed almost immediately by a volume of the *Art Journal* from another shelf. Both were lifted from the shelf almost to the ceiling, a very lofty one, and then dropped upon the table before the Psychic. This occurred in the full light of gas, when he had the tea-cup in his hand, and the books came from behind him far out of reach. Mechanical contrivance was impossible. No opportunity had been given for any such. He had not entered the room until the commencement of the experiment. He was seated immediately, and held in his seat and could not approach the book-shelves. Moreover, the volume of the Encyclopædia was upon a shelf from which it could not be taken without standing upon a chair.

CHAPTER VIII.

THE DIRECTING INTELLIGENCE.

We come now to what is truly a mystery—a problem in Psychology for which no satisfactory solution has yet been found.

The *Psychic Force*, whose operations we have been investigating, is, as the Dialectical Society reports, "*often directed by some Intelligence.*"

Of this there is no doubt whatever. No person who has experimented upon it—no person who has ever once witnessed it—will question this verdict. Be *the force* what it may, Intelligence directs its operations.

Sounds and motions, although apparently automatic, would excite little curiosity (save in the scientific mind) were it not for the association of that force with *intelligence*. Strangely enough, this characteristic, which gives to it its greatest value in the esteem of the Psychologist, has deprived it of all interest with the Physicist.

This direction by Intelligence is the special characteristic of the Psychic Force and distinguishes it from all other known forces. The physical forces are blind forces; that is to say, they act in obedience to definite laws, in a definite direction, to a definite end. Electricity is not directed by any *intelligence* and it is not in itself intelligent. The only forces known to us as naturally directed by intelligence are those that proceed from organic structure. But not all of these forces are intelligent, nor can they be directed or

controlled by the *Will,* by which name we designate the expression of the Intelligence. The part of the Mechanism of Man associated with Intelligence is that forming the brain and nerve system. This is the one apparent medium for the transmission and direction of the force at the command of the Intelligence.

The Force, whatever it be, that produces the sounds heard and motions seen and felt in Psychism is undoubtedly *directed by Intelligence.* In this it differs specifically from all the known physical and organic forces. It makes intelligent communications by intelligible signals, answers questions, expresses emotions and maintains argument.

What and whence is that *Intelligence?*

This is the first problem in Psychism that presents itself for solution. Opposing views of the nature and source of this intellectual influence are maintained by those having the largest experience, after giving to the question the most anxious investigation. The *evidence* appears to support equally the most divergent opinions. If facts presented to-day incline the inquiring mind to assign the phenomena to one source, other facts are presented to-morrow that appear to negative this and suggest another conclusion. Any hypothesis, therefore, can be little more than conjecture, and as such only must it be accepted by the Reader.

"The Spiritualists" as they call themselves, have a ready explanation. They assert the Intelligence to be that of disembodied Souls of dead human beings. The principal evidence they adduce for this is the assertion of the Intelligence. Questioned as to its identity, it usually declares itself to be the Spirit of some person deceased. But few other facts are adduced to support this theory. Is that self-assertion sufficient?

Certainly it is an easy and if accepted a complete solution of a very difficult problem. But the same solution would apply to almost every problem in Science. Assert of any unexplained fact that it is the work of Spirits of the dead and there is no need to seek further. But Science

requires some preliminary proof of the existence of the asserted agent. That is precisely the question at issue. *Do* the Souls of the dead survive? If surviving, do they remain upon this earth? If lingering here, have they the capacities necessary for the performance of such feats as are exhibited in Psychism? Beyond the assertion of the Intelligence (which, it must be remembered, comes through the organism of the Psychic), are any and what proofs given that it is what it professes to be? Has it knowledge such as we might reasonably assume to be the consequence of its new condition of being? If it calls itself by the name of a person known to the world in life, does it, in its communications, identity of character, ability, thought and language, prove itself to be that person. It must be admitted, even by those who accept the claim as genuine, that it rarely or never does so.

There is as yet no *satisfactory evidence* that, if Spirits of the dead survive, they live with us; or that, if so living, they would probably amuse themselves by making freakish sounds and motions; or that they would exhibit such limited knowledge and capacities as is, for the most part, expressed in these communications.

In such circumstances, Science rightly demands that, before acceptance of what must be admitted to be an improbable solution, we should exhaust all solutions consistent with the known and the probable.

What then are *the facts?*

It is *a fact* that the Intelligence always bears about it more or less of the characteristics of the *Intelligence of the Psychic.* Its ideas and language are his. It knows what he knows. If he is imperfectly educated, so is the Intelligence. Its grammar is his. Its teachings are what he would teach. His is its creed; his its nationality; his its tongue; his its spelling; his its knowledge and its ignorance.

It produces not the slightest evidence of the possession of superhuman intelligence; it contributes nothing to our knowledge of nature; it solves no problems in Science;

it tells us nothing new and no facts past or present capable of verification. It possesses a considerable amount of imagination and, upon matters incapable of verification, it is often abundantly communicative. For instance, it will sometimes describe the conditions of the life after death, such as, if it *be* a disembodied Spirit, it cannot fail to know and to have the ability to picture to us truly. It does sometimes so profess to present to us the "spirit world." But the value of its teachings in this respect is destroyed when we find that the various Intelligences manifested by various Psychics *differ* in their descriptions, each one depicting "the spirit world" in strict accordance with the notions of it entertained by the particular Psychic! So it is when religion is the theme. If the Psychic be a Roman Catholic, the Intelligence declares Catholicism to be the true creed; if a Methodist, it is emphatic in favour of Methodism; if a sceptic, it is sceptical also. If the Psychic be a child, the Intelligence expresses childish thoughts. For instance; it is reported by Mrs. De Morgan, in her very interesting book, "*From Matter to Spirit*," a child being the Psychic, that the Intelligence was asked to give an account of a recent deathbed. It reported how two angels had stood by the deceased, whose spirit rose out of the body, and being greeted by the sister spirits, the three walked together out of the door and up into the clouds. Here we have obviously a child's imagination of "ascending into heaven," not the actual knowledge of some distinct intelligent being who had gone through the process of death—which is the assumption of the Spiritualistic theory.

Indeed, the evidence *against* the theory that the Intelligence exhibited in these communications proceeds from Spirits of the dead is overwhelming. It is difficult to find even a few properly proved facts that appear to sustain it. For my own part I have anxiously sought for such proofs, but have failed to find them, although I have many times witnessed almost if not all the *real* as well as the *simulated* phenomena upon which the theory has been based.

The supporters of the theory, conscious of the strength of this objection, have shown considerable ingenuity of endeavour to remove it.

That theory is, that Spirits of the Dead are always about us, but enabled to make their presence known and to hold communion with the living only through the intervention of a human being possessing some wholly undefined, and, as it would seem, merely conjectural qualities—physical, not mental—by coming within the sphere, or by appropriation, of which the disembodied Spirit is enabled to re-embody itself so far as to become audible, tangible, and occasionally visible. Sometimes, they contend, this non-material Spirit takes possession of the body of the Psychic controlling his entire nerve system, but sometimes his organs of speech only. Then occurs that remarkable similarity to the mind and language of the Psychic which obviously characterises the communications. As the *ideas*, they say, are conveyed through the mental and bodily mechanism of the Psychic, the verbal utterance of them cannot but partake to a considerable extent of the character of the mechanism through which they are expressed.

This explanation, however ingenious, is certainly very unsatisfactory to the reasonable mind. The *fact* that the communication comes from the lips or the hand of the Psychic is not denied; but what is the rational inference from this fact? Surely, that having the aspect and the character of an emanation from the Psychic it does in truth proceed from him. It is difficult to believe that Spirits of the dead can be dependent upon the special physical organisation of a few persons for so important a power as that of communication with the living. It is more difficult still to imagine that a nerve aura, or whatever it be, emanating from those persons can be used for the formation of bodies substantial enough to raise heavy substances or to present to the touch a seemingly solid structure of flesh and blood. It is inconceivable that another entity, however unsubstantial, should enter into and take positive possession of the

body of a living man, and speak and act *its own* thoughts with *his* organs. The theory appears to me, as to many who have investigated with calm judgment these undoubted phenomena, to be extravagant almost to absurdity and to make almost any other possible explanation preferable to this.

The *facts* are proved. Let us briefly examine them, to see if they point to any more probable conclusion.

The sounds and motions are always without aim or object, until some intelligent Will is exercised upon the producing force and then they are directed to a definite purpose. In the neighbourhood of a Psychic, without any Will or wish on his part, the sounds often come and go upon the floor, ceiling, wall, table, chairs. Sometimes there are automatic motions of furniture. I know a Psychic who never travels without the characteristic sounds being made upon the roof, the floor and the windows of the railway carriage, to the amusing perplexity of other travellers. Another Psychic known to me is a positive annoyance to her neighbours in church or chapel by the incessant rappings upon the woodwork of the pew, which she in vain endeavours by her Will to prevent. When walking with her husband, the "rappings" are loud upon his walking stick, and if she stops in the street to speak to a friend they resound upon the pavement. When Professor PEPPER, of the *Polytechnic*, advertised to explain and exhibit the mystery of "rapping" by an elaborate mechanism laid under the floor, an amusing experiment was tried by a distinguished F.R.S., who was then investigating the phenomena. Mr. PEPPER had promised to shew him his rap-producing apparatus. The F.R.S. called accordingly, taking with him a Psychic of considerable power, personally unknown to the Professor. Soon, rappings were heard all about them, on floor, benches and table. "What can have set my machine in motion?" exclaimed the Professor. He looked at it, but it was at rest, and still the sounds continued. "What can it mean?" He searched about him for a cause, but vainly.

After enjoying his perplexity for some time, the F.R.S. told him that he had brought with him *a real Psychic*, purposely to compare the natural sounds with those artificially produced by his elaborate mechanism. The Professor frankly confessed that his imitation was very unlike the original and that the true Psychic had completely baffled him.

From all this it may be gathered that the psychic force, like the electric force, is in itself a mere force which, when undirected, moves to definite ends according to definite laws. But both are alike capable of being diverted and directed by Intelligence. The Intelligence directing the Psychic Force exists *within* the mechanism where the force is generated. The Electric Force also may be directed by Intelligence, for the purpose of communication with other Intelligences, (as seen in the telegraph), but that Intelligence is supplied from *without* and acts through some other medium.

Both sounds and motions are usually made in response to request. Asked to strike so many times, that number will be struck. In many cases it suffices merely to form the desire in the mind, without expressing it, and the number merely thought of will be given. Communications are sometimes made without preliminary request. Intercourse is usually established by repeating the alphabet, when, on naming the right letter of the first word, the characteristic sound comes from the table, the floor, or some solid body with which the circle is associated. But it is not always necessary to go through this somewhat tedious process. If the letters be written or printed in squares upon a card, and a pencil be pointed at each line in succession, the signal is given by three blows, if the letter of the word be in that line. Then it will suffice merely to pass the pencil over the line so indicated and when it touches the right letter the signal sounds. By repetition of this process whole sentences are communicated. It is equally effective when the Psychic cannot see the motion of the pencil.

If it be requested that the table or other furniture

should tip a certain number of times to imply an affirmative, it will so tip. Or, if desired that it should rise to the hand placed two or three inches above it, often it will so rise. The sounds will come from any part of the table pointed to by the finger, from the floor, from the wall, from the chair, from a bell, from a piano (being there indicated by striking the notes), from the chandelier above the table, from a sheet of paper suspended by a pin so that it is untouched, and even when held by some person other than the Psychic.

Nor is actual contact necessary to these results. If every hand is removed from the table, the sounds and motions often continue. I have seen the same phenomena produced under every variety of test that scientific ingenuity could contrive. If the evidence of the senses is not entirely to be rejected, no fact in science is proved more conclusively than these. If such evidence is not to be accepted, the pursuit of truth must be abandoned altogether.

These are a few of the phenomena. The force is manifestly associated, in some manner at present unknown, with the human organisation. This is acknowledged even by the most zealous advocates of the theory of Spirits of the dead.

That *Intelligence* directs the force is proved conclusively by the very frequent phenomenon of the playing of tunes on musical instruments. Many times I have heard the accordion played upon when the Psychic has been holding it suspended from one hand, his other hand lying full in view on the table. It has been so played several times when held suspended by myself and untouched by the Psychic or any other person. Moreover, the tune to be played is not chosen by the Psychic but requested by the experimentalist. To make assurance sure that the fingers of the Psychic were not employed in the operation, Mr. CROOKES constructed a wire cage, in the centre of which the accordion was hung; yet it played, as before, the tunes we asked for. On one occasion, my family had gone to Exeter Hall to hear

"The Messiah." Asked to name a tune to be played, I said jestingly, "Play what my daughter is hearing now." I had said nothing as to her whereabouts. Instantly the accordion played, with singular power and expression, "The Hallelujah Chorus." It would have been due, under COSTA'S lead, about that hour. This occurred in my own house, where mechanism and confederacy were carefully excluded from what was part of a strictly *scientific* investigation and experiment. On another occasion, in the drawing-room of a friend, the tune asked for was "The Last Rose of Summer." It was played in varying tones, now loud, now soft, and then so gently that it was merely a thread of most delicate music. I whispered into the ear of the person next to me, "Surely no human hand could produce such tones as these." Instantly the music ceased; violent blows on the table indicated a desire to make a communication. Then, by the customary calling of the alphabet, but indicated by notes played upon the accordion instead of the customary rapping upon the table, this sentence was spelled; "Our hands are as real as yours." It had an obvious reference to my whispered remark. All this passed *in the light.*

The experiences narrated above are but a few out of a multitude witnessed with the accordion. But that is not the only instrument so used. I have repeatedly heard the pianoforte played upon in like manner, with equal skill but not with equal expression, as also the Pan's-pipe, the Jew's harp, the mouth organ, the tambourine, and the guitar. A musical box has been many times, at request, wound up, set to play, suddenly stopped, and then set to play again, and this when it has been far beyond the reach of the Psychic, even if his hands had not been held at the moment, as always they were by the scientific experimentalists who were investigating purely for the sake of science.

In my own drawing-room, myself and the Psychic being alone, the pianoforte *closed,* one of his hands laid upon it and the other holding the accordion at the end *opposite* to the keys, the two instruments played a duet

for ten minutes. I took the accordion from him as it was playing and it continued to play when I alone held it. It should be stated that I do not know a note on this instrument, and the Psychic, who is an excellent player on the pianoforte, is unable to play the accordion.

No proofs more conclusive than these could be given that the Psychic Force is not a blind force, like the physical forces, but is directed by and obeys *some* Intelligence.

Nothing so much disturbs the majority of Minds as doubt. Many are ashamed to say, "I don't know." Few have the wisdom or the courage to say, "Let me first learn what are *the facts*, without wasting time and thought in attempts to explain them. When the facts are fully known they will tell their own story and supply their own explanation. Labour and wait." Even with that which is strange only because it is new, if no immediate explanation of the phenomenon presents itself, it is still, as ever it was, the fashion to relieve doubt by flying to the supernatural and attributing whatever is inexplicable to supramundane influences. The agency of Spirits of the Dead is a ready resource for removal of any difficulty, while it saves a world of trouble in experimenting and thinking. Moreover, it is so conclusive. It disposes of every problem perfectly. It explains everything. No wonder that always it has received a cordial welcome and found more followers than the thoughtful few who say, "Exhaust all possibilities of Nature before you look beyond Nature." The formidable objection to the supramundane theory is that it is *too good*. Accept it and every book in the scientific library might be burned. There is not a problem in science that could not be solved by assuming the phenomena to be the work of Spirits of the dead.

Thus have the phenomena of Psychism been treated. Seeing some *Intelligence* at work, the too hasty conclusion was formed that it *must* be the intelligence of a supramundane being, and that can be no other than the Spirit of a person who has passed away from earth-life?

This argument solved the problem, and it is not surprising that it found easy and extensive acceptance.

Of course I would not be so arrogant as to assert that the holders of this theory are certainly wrong. I cannot dispute the *possibility* of Spirits of the dead having such a mission and so acting. But I contend that we have no right to set up such a startling theory until we have thoroughly investigated the phenomena, collected a vast body of facts, carefully digested and compared them, mastered all the conditions attending their production, and then are *compelled* to an irresistable conclusion which certainly, upon the face of it, teems with improbabilities.

But the conditions under which the phenomena of Psychism are manifested not merely fail to support the theory of Spirits of the dead; they point directly to an origin in the Psychic. The reasonable presumption is that the Intelligence governing the force proceeds from the same fountain as the force. They appear and disappear together. Both come with the Psychic and go with him.

Moreover, the communications rarely exhibit more than ordinary human intelligence. For the most part they are below the average mind. They savour strongly of the Psychic in whose presence they are produced. As stated above, they reflect precisely the character of *his* mind. If the Psychic is coarse in thought and speech, so are his communications. If refined, so are they. His theological opinions are faithfully expressed. This is the rule. The exceptions are extremely rare and may be accounted for by other mental conditions already described, without assuming them to be Spirits of the dead.

If, therefore, the Intelligence that directs the *Psychic Force* precisely resembles in character and degree the intelligence of the person from whom the force proceeds, is it not a rational inference that, *there* is the source of the Intelligence whose operations we witness? Why should we assert the interference of something not perceptible merely because we cannot at once discover

the connecting link between the force and the Intelligence that apparently directs it? Is not action by Spirits of the dead quite as difficult of acceptance as the imperceptible connection between a nerve force and a mental operation directing that force?

This way of escape from a palpable difficulty might have something to recommend it, but for a fatal blot. It is conceivable that the *expression* of a thought might be shaped by the instrument through which it is conveyed; but what of the thought itself? If a disembodied Spirit were desirous to communicate *its own ideas*, surely *these* would not partake of the imbecility, or the ignorance, or the idiosyncracy, of the Psychic! In fact, the thoughts are the Psychic's thoughts and not such as, upon any theory of spiritual existence, can be attributed to the disembodied Spirit of the mortal it professes to be, and scarcely of any other. Even the Psychic's ignorance of science or of natural facts is faithfully reflected in matters about which a Spirit of the dead could not possibly be ignorant!

But the question, "What is the Intelligence?" is of such vast importance that it is necessary to state more fully the facts and arguments appearing to point to the conclusion that the intelligent communication is a purely Psychical operation, and not that of Spirits of the dead. Admitting to the full the difficulty that attends all attempts to explain the process by which the Intelligence works, the reasons for assigning it to the Psychic, or to some of the persons present, are overwhelming. It will presently be seen that almost all, if not all, of the conditions requisite to the production and manifestation of the force are consistent with the *Psychic* theory and *inconsistent* with the *Spiritual* theory. It must be understood that I treat now of the phenomena that are purely Psychic.

I will summarise these conditions of Psychic action as succinctly, but as clearly, as I can. Some of them have been submitted in the previous pages. But these and other repetitions are unavoidable in a treatise on a subject so novel and still so obscure.

SUMMARY.

1. The presence is necessary of a person called by Spiritualists a medium, by Psychologists "a Psychic," who may be of either sex, of any age, of any degree of intellect or stupidity. The faculty does not depend upon any known physical or mental qualifications. Children in arms are often better Psychics than adults. No special condition of body or mind appears to accompany the possession of the Psychic Force. Its presence is in no way dependent upon the Will of the Psychic, who can neither cause nor prevent the operations of the force. No consciousness of any effort, mental or bodily, attends its exercise. All we positively *know* is, that when a Psychic is present a force is exhibited which moves heavy bodies without contact by any visible substance. The magnet does the like, but it does not equally surprise us, simply because it is familiar.

2. As a general rule (for I have been informed of, although I have not known, instances to the contrary), it appears to be necessary to the production or the operation of this force that other human beings should be present with the Psychic.

3. The persons present must form a chain of communication, more or less perfect, either by actual contact of hands, or by some connecting substance, such as a table or other solid body.

4. The force is materially affected by the arrangement of the persons forming the circle, as also by the state of health and other yet undiscovered conditions of those persons.

5. The force is greatly influenced by the bodily and mental condition of the Psychic. Sickness or mental agitation always weakens, and often altogether prevents, its production. The amount of the force varies, not only from day to day, but almost from minute to minute, according to the surrounding influences, the heat of the room, the dampness of the atmosphere, the excitement of conversation. Almost every incident that affects the

nervous system affects the force. Cold weakens and warmth increases it. When it flags, a cup of tea will often restore it. Whatever Psychic Force may be, it is plainly dependent, to an immense extent, upon the bodily and mental condition of the Psychic.

6. The force is much increased by whatever tends to harmonise the minds of the persons present. Music has a manifest influence, so has prayer, so has recitation, so has a lively conversation in which all join. But if the party converse in groups, on different topics, and there is consequently diversified employment of the brain, the force is feeble or non-apparent. Silence is adverse to its manifestation, probably because in silence each mind is occupied differently. The simultaneous molecular action of all the brains present favours the production and operation of the force.

7. The force is manifestly affected by light. A very bright light weakens it; a dim light strengthens it. Darkness is by no means necessary to its action.

8. The tappings on the tables and on the furniture and walls of the room are often made by request, or in answer to questions. Words and sentences are communicated by this process. But these communications, so far at least as I have heard them, or have been enabled to authenticate them, indicate no higher intelligence, and usually far lesser intelligence, than that of average human beings. They are always intelligible and sensible sentences, that is to say, they have a meaning and are intelligibly expressed; but they impart nothing that is not known to the Psychic or to some one or more of the persons forming the circle.

9. The character of the communication is always found to be in accordance with the mental condition of the Psychic. If the Psychic cannot spell, the words are misspelled. If the Psychic is ignorant of any subject about which inquiry is made, the answers partake of that ignorance. If the Psychic is ungrammatical, so is the message. His provincialisms are faithfully preserved. The communications through an American Psychic teem with

Americanisms; those of a London Psychic smack often of Wapping.

10. The language of the communication is that of the Psychic. With a French Psychic, the communications are in French, with a German Psychic in German—that is, if he is ignorant of English; but if he knows English imperfectly, the communication in England is in imperfect English.

11. The force is materially influenced by the electric and magnetic condition of the air and of surrounding bodies.

12. It is influenced in yet greater degree by the magnetic, or to speak more correctly, diamagnetic, condition of the Psychic and of the persons present, and their due arrangement as links of the chain appears to depend upon the relative conditions in this respect of the persons forming the chain, two persons negatively diamagnetised weakening the force by being placed together, apparently as if they acted as absorbents of it; whereas two persons in a positive state of diamagnetism sitting side by side appear to increase the force.

13. The sounds and motions do not come immediately and together, but by degrees. If a stethoscope be placed upon the table and the ear applied to it, the force will be found to operate thus: At first, very faint creakings in the wood are audible, as if the fibres were separating in the heart of the timber and not upon the surface. As you listen with this instrument, the creakings become, by degrees, louder and more frequent and are heard in many parts of the table at the same time. Then a strange quivering motion of the whole structure is perceptible to the touch, a rapidity of motion that cannot be produced by any muscular action—at least, all experiments made to imitate it have failed. As the sounds grow in strength, they cease to be creakings and become blows, but still preserving the peculiarity of seeming to be in the heart, and not on the surface, of the wood. These blows can be distinctly *felt* by the hand, even when not audible to the ear. Occasionally, they are as loud as if

the table or furniture had been struck by a sledge hammer. Sometimes they resemble a smart blow with pointed metal, sometimes a thump with a blunt, soft instrument. Sometimes it is as if the blow were with the point of a pin, and sometimes as if a heavy fist had descended upon the wood.

14. Generally the force is not exhibited until invited. The same party may meet, but if their minds be not formally directed to the common purpose, the phenomena will not occur. When a circle is formed, *and all direct their thoughts to the one object*, the phenomena speedily commence. Occasionally, however, they present themselves uncalled-for, when least expected, and sometimes when the Psychic is alone and occupied with other matters.

15. It is a popular error that the presence of a *sceptic* has a preventive or impeding effect. If the *physical* condition of the most determined sceptic favours the phenomena, it will increase the force. It is otherwise with an active *opponent*. Positive antagonism has a marked effect in diminishing the force and often extinguishes it. An open or a doubting mind has no adverse influence; but a mind actively hostile, treating the phenomena as impostures and the Psychic as a rogue, always impedes and often prevents the action of the force. Doubtless this is due to the operation of that mental sympathy, already treated of, which disturbs the mind of the Psychic and so prevents that *concentration of attention* which appears to be necessary to the production of the force—or rather to the condition of incipient trance, in which alone the force is active.

16. For the most part the communications, though framed in coherent language, are useless and purposeless, and sometimes have much of the character known by the name of "chaff." They are rarely absolute nonsense; but as rarely do they exhibit anything above the average intelligence of ordinary society. Moral platitudes and common-place answers to test questions are the *usual* products. Not unfrequently they are false in fact—

manifestly *guesses*, not knowledge—and no reliance whatever can be placed upon them. Never do they add to our knowledge of the facts of nature, nor solve a problem in science, nor explain a difficulty in history, literature, or philosophy, nor impart such information as a Spirit of the dead *must* possess, and which would make clear much that is doubtful or promote the ends of truth and justice.

17. Their descriptions of death and of the future life are precisely the pictures which persons not accustomed to accurate thought usually form in their own minds, often revealing perfect ignorance of physical facts. Moreover, they do not agree with each other in their descriptions, a fact that proves these to be products of imagination and not the reports of personal knowledge.

18. These descriptions vary according to the age, sex and education of the Psychic. They are always the conceptions of death and of a future state which would be formed by such a person as the Psychic. No two of the Intelligences give the same account of themselves or of their abode; yet all assume to be the utterances of beings who profess to be (and if they be Spirits of the dead *must* be), personally acquainted with that which they are depicting.

19. When the Psychic in a state of trance utters a rhapsody, it is usually either a mere torrent of fine phrases, which convey no definite information, no novelty of thought, no original ideas, no new truths or old truths in a more striking form, or the narratives are fanciful pictures of an excited imagination, such as attend the first coming on of delirium.

20. If the communications touch upon religion, they reflect invariably the religion of the Psychic. If he be a Churchman, the creed of the Church is affirmed; if an Unitarian, the unity of the Godhead; if a Deist, Deism; Mahomedanism is expressed in the presence of a Mahomedan Psychic, and so forth. It might be reasonably expected of a disembodied spirit that it should at least know what religion is the true one, or at all events

that it should not represent a false one to be true. Yet is no such communication ever made. On the contrary, the faith of the Psychic is always presented as the true faith.

These twenty conditions attending the production of the phenomena appear to me to go far to negative the theory that Spirits of dead human beings are the agents in the work. All of these conditions are *inconsistent* with any rational hypothesis of spirit life. All point directly to the Psychic as the Intelligence concerned in their production. If it be said that Spirits, being immaterial, can manifest themselves only through some human organism and hence the undeniable expression in the communications of the mental characteristics of the Psychic (and possibly of others present) surely the reasonable conclusion is the obvious one, that the phenomena are to be attributed to some abnormal action of the nervous system of the Psychic or to some agent other than Spirits of the dead. I pass over altogether the still longer list of the reasons that make it improbable that the phenomena are the work of Spirits of the Dead, according to any notion we can conceive of spirit life, because I admit that, knowing nothing of the conditions of that life, we cannot positively assert anything of it.

I arrive, therefore, at the conclusion, that the Intelligence directing these phenomena, which are of undoubted occurrence, is *not* that of Spirits of dead human beings.

Surely these facts go far to prove that in some mysterious manner the phenomena are associated with, and mainly if not entirely dependent upon, some abnormal condition of the Psychic. Do not the conditions also point with equal cogency to the conclusion that, even if the controlling intelligence be *not* that of the Psychic, it is not that of Spirits of the dead? The argument may be thus briefly summarized:

The actions and communications are not such as by any stretch of imagination can be assigned to, or even associated with, disembodied spirits of human beings.

The exhibition is for the most part trivial, tricksey, and unworthy of the asserted agents. The motions of tables, chairs and other furniture are manifestly due to the presence of some *attractive force*, operating much as does the Magnetic force, to the passage of which molecular matter is no impediment. The Psychic seems to bear to the substances acted upon a *somewhat* similar relationship to that borne by the magnet to the substances it influences. The Psychic Force, like the Magnetic Force, acts without contact upon bodies within a limited range, even when other solid bodies are interposed. It is motion at a distance, like that of the magnet.

There are, undoubtedly, other phenomena not to be thus explained. But although it is impossible to doubt that some Intelligence is at work in these, it is equally difficult to attribute them to Spirits of the dead. The obvious effect of music, often upon the production, and always upon the amount, of the force, is in itself a remarkable taste for disembodied Souls to indulge and the more so when we find the preference to be given to comic songs! Why should laughter be so welcomed and echoed by Spirits who in their lifetimes were sage, grave men?

Again, Psychics are *developed*. Their power grows with practice. All the phenomena are not produced immediately, but come by slow degrees. None has ever found himself suddenly possessed of the power to produce any but the first indications of its presence—motions and sounds. If anything new occurs in the presence of other Psychics, a desire to produce the like seems to direct attention to it. Fixed attention by the Psychic appears essential to determining direction of the force. This given, the phenomenon is produced. If an entirely new manifestation of the force occurs anywhere, it never fails to be reproduced by our own Psychics, after they have heard and read much about it, simply by looking for it with strong desire and patient waiting. All the most remarkable of the recent phases of Psy-

chism were first witnessed in America. Almost certainly after the arrival here of reports of some new phenomenon, we learn that the same novelty is being exhibited in presence of our own Psychics. Imposture is, of course, rife in such cases. I refer now to such phenomena only as occur under crucial tests that preclude the possibility of fraud. It is very difficult to understand why the disembodied Spirit, which certainly possesses better capacities for information than any embodied Spirit, should require *development* and practice for its manifestations, should learn its lesson readily or slowly, according to the zeal and capacities of the Psychic, and wait for newspaper intelligence of what other Spirits are doing in other parts of the world before it is able or willing to exhibit the new phase of the phenomena. A Spirit, according to any definition of it suggested by any theory, is released from *some*, at least, of the bonds that necessarily limit human intelligence. Probably it is not subject to our laws of time and space (which are merely human notions). Certainly it is not subject to gravitation, which acts only on molecular matter, and the human Spirit, if it exists, is non-molecular. A disembodied Spirit must have perceptions vastly wider in range than ours, with larger powers of locomotion, and therefore must of necessity know more than it could have known when in the flesh. Is it then conceivable that such a being should be dependent for the revelation or the exhibition of itself to us upon the success of endeavours made by a Psychic to develope, by persevering practice, the abnormal powers belonging to his own organization? If they be really the doings of Spirits of the dead, wherefore should a new manifestation in America make no appearance in England until the post has brought the account of it to our own Psychics? Surely, if the "Spirit of the Dead" theory be the true one, the English Spirits could have procured the information with rapidity and certainty, and exhibited here the like phenomena, without waiting for the slow process of *educating the Psychic*.

Observe, that I am not now arguing against *the fact*, which I entirely accept, but against *the cause* or source that has been assigned to it. I admit that the acts are done, that the phenomena occur; but I question the means by which they are asserted to be done.

The communications are for the most part *below* the average of human intelligence. In no single instance within my personal experience have they exhibited the remotest trace of having come from an Intelligence superior to that of the Psychic or of some of the persons present. When the Psychic is uneducated, they are the commonplaces of the unreflecting conveyed in the language of the illiterate. When the Psychic is of intellectual capacity and education, intelligent and accomplished, the communications proclaim their origin in more profound reflection and are clothed in choicer phrase; but they betray no symptom of more extended *knowledge*, nor of larger or loftier mental capacity, than the Psychic would himself display when in a condition of great cerebral excitement.

It is true that they frequently *profess* to be made by the Spirits of deceased persons who were the relatives or friends of some of the persons present. But in one instance only have I been enabled to trace any truth in these signs of recognition. I have been personally assured many times that some member of my family, or some dear friend who had passed away from earth, was communicating with me by rapping or writing. I noticed that *always* the alleged Spirit was that *of some person whom I had strongly in my mind at the moment*, but who was not nearer nor dearer than many others who did not present themselves. Asked, "who are you?" the name was rightly given. Usually some common-place communications were made, such as, "I am glad to be with you;" "I am very happy;" "I am often by your side." Desirous to test the identity of my interlocutor, I have put questions that were answered readily. Some were right, but more were wrong, and others were so equivocal that it was obvious the com-

municant was *guessing*, not *knowing*. Occasionally I have put test questions, such as, "Do you remember when you fell from the horse and broke your arm?" In such cases the answer was, "Yes;" although no such accident had ever occurred. Never once did the alleged Spirit of my relative or friend correct me by answering that no such event had happened. I had long suspected that the *mental communion* described in a former chapter would explain much of the phenomena. Therefore I tried another test. Keeping the idea of a living friend strictly in my mind, I have received answers to my questions as if from *that* friend. Thus was I satisfied that the process is really that of mental sympathy and communion—better known as "thought-reading." In fact, the Psychic is in the condition of the Somnambule, and exercises the faculty exhibited so constantly in Hypnotism.

Moreover, the communications are, for the most part, unworthy of the persons to whom they are attributed, or not in keeping with their characters—(unless the Psychic has some knowledge of them, or the inquirer has those characteristics strongly in his mind)—Then they express just such characteristics as the Psychic might be supposed to attach to such a personage, often being very unlike the original. Or the description is an echo of the mental impression of the inquirer. When the Spirits of men who had been distinguished for genius in their earth-life declare their presence (as often they do) I have never found them to support their asserted characters in thought or in language; proving thus much, that they must have degenerated sadly since their passage from this life to another. For instance, A communication made to me was asserted to be by the late Dr. ELLIOTSON: "Do you remember me," I asked, "Yes, well." "My name?" Answered rightly —(it was, of course, known to the Psychic). "Do you remember my visit to your two patients?" "Yes, you were much interested." I now bethought me of a test: "Do you remember my asking Elizabeth to bring the

book from the library?" "Yes, well." "And reading it to me without opening it?" "Yes." "And what I said?" "You said it was marvellous. It convinced you." Now this was a pure invention, for the purpose of trying the identity of the alleged personality. No such incident had occurred. The thought was in my mind and that was probably imparted to the communicating Intelligence. But it proved that, whatever the Intelligence might be, it was not the Spirit of Dr. ELLIOTSON. Again, sitting with another Psychic, communications were made professed to be by a Spirit having prophetic powers. It was prophesied of me that in a few weeks I should put on a black cap and sentence a woman to be hung. It was, of course, known to the Psychic that I occupied a Judicial office; but he did *not* know that the jurisdiction of Quarter Sessions was limited, and that I had not power to inflict capital punishment. Here again the ignorance of the Psychic was manifestly reflected by the Intelligence.

Deceased persons, whose names are unknown to the Psychic or to any of those about him, rarely present themselves. When persons still living are purposely represented as dead, communications are often made as if from them.

Again, the Spirit of the same dead person usually attends the Psychic for many years. Is it conceivable that the Spirit of a dead man should thus be attached to a living one, not always entitled by moral character to such an attendant? And not this only, but the same alleged Spirit attends upon several Psychics in England and America alike. Thus "John King" waits upon four Psychics at least.

These are but a few of the facts that appear to me to *disprove* the theory that the communicating Intelligences are Spirits of the dead. In this I state the results only of my personal experience; but they were arrived at after much painstaking investigation, with an earnest desire to ascertain the very truth and not to confirm foregone conclusions. In so obscure a matter,

upon which our knowledge is as yet so limited, it would be rash and dogmatic to pronounce a positive judgment. But, in the honest pursuit of truth, I am bound to state, that not only have I been unable to obtain personally *any* satisfactory evidence that any of the purely Psychic phenomena are produced by Spirits of the dead, but *all the evidence I have been able to collect tends to negative that conclusion* and to prove that the communications are intimately associated with, if they do not directly proceed from, the Psychic or are excited in his mind by sympathy with the minds of the persons present.

I frankly admit, however, that it would be unjust to pronounce as yet a *definite* judgment. The facts have been very imperfectly observed, experiment and test have been but partially applied, the conditions have not been examined exhaustively. By but few of those who have observed and noted have the ordinary rules of evidence been obeyed. Therefore, wanting a sufficient body of *facts*, we are not yet in a position to arrive at a satisfactory solution of the problem.

But the weight of evidence appears to me to indicate the Psychic as being the immediate source of the Intelligence that undoubtedly directs the action of the Psychic Force. I have already set forth the facts which, carefully examined, are found to be not only consistent with such an explanation, but inconsistent with the more popular one that assigns them to Spirits of the dead.

The Reader, however, will probably ask if any reasonable suggestion can be offered to explain the process by which the Intelligence of the Psychic *may* be enabled thus to govern a force flowing from his nerve system, so that it shall express thoughts of whose very existence he is himself unconscious.

The Reader is entitled to an answer; but I can only proffer what must be accepted as little more than *conjecture*.

It will be remembered that, in Somnambulism, the brain performs its functions automatically, that is to say,

undirected by the Will and without the consciousness of the Individual.

From this we learn that, in certain conditions of the body, the brain can perform the functions of thought and feeling and control the action of the muscles, without the exercise of the Will, without consciousness, and without the guidance or knowledge of the Soul (or Self). In such cases the limbs act in obedience to the controlling brain as readily as if the brain had been controlled by the Will. There is no consciousness at the moment, nor any memory afterwards, until the recurrence of the same conditions, when the memories of the past conditions revive and the memories of the waking life are for the time extinct.

Unconscious cerebration is the name given to this psychological condition. It has been fully treated of in a former chapter (*ante*, p. 10). It is one of the most remarkable features of Somnambulism, as any Reader, who will take the trouble to try the experiment, may readily satisfy himself. The same mental condition occurs also in our waking lives and in our moments of active exertion as well as in the season of meditation.

Unconscious Cerebration is one of the conditions of *Dream*, and the cause of its most marvellous and mysterious characteristics — the presentation of many persons playing many parts, often with perfect propriety, all of whom are nevertheless creations of the brain, which pictures them to the mental eye as definitely and distinctively as if they were real, and assigns to them actions, and puts thoughts and speech into their mouths, appropriate to those imaginary personages and situations, the individual dreamer accepting them as true and being entirely unconscious that it is by his own brain the drama is improvised, every character invented, and the dialogue composed.

The practical conclusion at present to be drawn from this phenomenon of dream is, that in certain conditions the brain works automatically and that in such case it

can play many parts, assume many characters, and act them with appropriate conduct, ideas and speech, without the Individual Self being conscious of what his brain is doing.

The suggestion I venture to submit for the consideration of Psychologists, as being a probable solution of the problem, how the Psychic controlling the force (if the directing Intelligence be his, and not that of other unperceived existences) can present itself under so many different characters and maintain them so well is, that the Psychic is in the condition of Unconscious Cerebration; *that he is doing before us, while sitting in his chair, precisely what he does and what we do every night lying in our beds; that is to say, his brain is now, as then, inventing the various personages who profess to present themselves to us, and acting them with more or less of fitness, and that this is done, as in dream it is, without consciousness by his individual self (Soul) of what the brain is doing.* If so it be, it is not, as may be hastily concluded, an imposture, in the proper sense of that term. The Psychic so under the influence of Unconscious Cerebration is not knowingly deceiving. *He* is deceived, *as we are all deceived when we dream.* In the state of complete *Trance,* which is the most frequent form of Psychism, and certainly that in which the phenomena are most powerfully exhibited, there can be no doubt that the Psychic is unconscious of all external impressions, and the observer, who recognises Unconscious Cerebration as a Psychological fact, will certainly then recognise its presence in every word and act of the Psychic. The doubt that naturally presents itself is, if this process of Unconscious Cerebration is possible when the Psychic is awake and in apparent possession of his Will, his consciousness, and his ordinary mental powers; at least, to such an extent as would permit of a portion of his brain acting unconsciously to himself? But reference to the description of the phenomena of Unconscious Cerebration, contained in the chapter devoted to it (*ante,* p. 10) proves that it occurs often to ourselves in our

soundest health and in the most active condition of the mental powers and that, therefore, its occurrence with the Psychic, when awake, is not impossible nor even strange. It is merely a question of degree. The condition of Psychism being an abnormal state of the organism, it might be anticipated that Unconscious Cerebration would be much more powerful in its manifestations with the Psychic than with ourselves.

If this be accepted as a *probable* condition under which the Psychic may control the Psychic force, it will perfectly solve the perplexities and remove the difficulties that present themselves to every scientific investigator of the phenomena of Psychism. Thus we are enabled to explain many of the conditions found to be requisite to the manifestation of Psychic Force. It accounts for the fact, that the phenomena seldom occur save when the attention of the Psychic is directed to the production of them, as by sitting at a table and such like formalities, and but rarely when the same party are casually assembled in the same room, without any purpose of a *séance* or any thought given to the subject. It explains why more or less of time elapses before the coming of the force is perceived; why the presence of a Psychic is necessary; why anything that distracts the mind of the Psychic disturbs the action of the force; why the power is more or less according to the state of health of the Psychic; why it varies from hour to hour and is increased or diminished by the condition of the atmosphere and the temperature of the room; why scepticism in the spectators does not affect the phenomena, while positive antagonism obstructs it; why the force always obeys some Intelligence and yet indicates no Intelligence greater than that the Psychic would exhibit when in the condition of ecstasy that usually attends Somnambulism. This accounts for all that the communicating Intelligence does and fails to do, knows and does not know, its truths and its falsehoods, its accuracy and its blunders; why the communications always bear the impress of the mind of the Psychic, expressing *his* ideas, *his* information, *his*

opinions, religious, political, or social, knowing what he knows, ignorant of all of which he is ignorant, spells as he spells, and even accommodates its grammar to his. All of the facts above detailed as negativing the theory of Spirits of the Dead are explicable in the manner I have ventured to suggest.

And here, in confirmation of this solution, I may conveniently introduce the conclusions arrived at by a careful, learned, and scientific Investigator. The profound interest of the extract will, I am sure, excuse its length. The book from which they are taken is entitled, "Modern Mysteries Explained and Exposed," by the Rev. A. MAHAN, of Boston, U.S., and was there published. It completely confirms what I have ventured to advance as to the *psychical* source of the physical phenomena. There are other alleged phenomena which undoubtedly do not admit of such an explanation. These, however, must be considered separately.

The facts on which the reality of the agency of spirits out of the body, in the production of these manifestations, is affirmed, are all, without exception, comprehended in the following classes, namely:—

1. Facts of a purely physical character, such as the moving of tables, chairs, &c., movements which sometimes accord with the thoughts and suggestions of inquirers.

2. *Intelligent* communications, by means of rapping sounds, speaking, and writing; phenomena which, in many instances, to say the least, occur wholly independently of the direct conscious agency of the mediums, or any other persons present, on the occasion.

3. Communications pertaining to subjects of which the *mediums* are profoundly ignorant, and yet found to be correct.

4. Correct communications pertaining to facts believed to be known only to the inquirer himself, and the particular spirit with whom he is professedly communicating.

5. Similar communications containing correct responses to purely *mental questions*.

6. Communications conveying, in some instances, correct information in respect to *facts unknown to the inquirer or any other person present*.

Facts falling under one or the other of the classes above-named are continuously occurring; it is claimed in all parts of Christendom, and can be accounted for but upon one supposition,

namely, that these communications proceed from disembodied spirits.

Such is the argument of Spiritualists, as stated by themselves, and stated as strongly as ever—to our knowledge—given forth by any writer or speaker who advocates the spirit theory.

Either of the following positions may be taken by those who deny this theory.

1. They may *deny the facts* put forward by Spiritualists, and then meet the evidence adduced by them in favour of the actual occurrence of such facts.

2. Or they *may admit the facts*, and then meet the arguments based upon them.

3. Or, finally, they may *deny both the facts and the conclusions* based upon them, that is, they may take the ground that the facts claimed by Spiritualists are impositions, on the one hand, and that, if admitted as real, they do not sustain the claims of spiritualism, on the other. In each and every case alike, the burden of proof rests wholly upon the advocates of this new theory. All that its opponents have to do, unless they choose to proceed further, is to meet the facts and arguments adduced by its advocates to sustain its claims. For ourselves, in conducting the argument in the present treatise, we shall admit the facts claimed by Spiritualists, and join issue with them simply and exclusively in regard to the conclusions which they deduce from them.

We admit the facts for the all-adequate reason, that after careful inquiry we have been led to conclude that they are real. We think that no candid inquirer, who carefully investigates the subject, can come to any other conclusion. While we honestly believe that there is more imposition connected with this movement than with almost any other that can be named, yet we as fully believe that a denial of the facts claimed by Spiritualists, as comprehended under the classes above-named, has its exclusive basis either in ignorance, or a state of prejudice which is blind to valid evidence. We have ourselves witnessed physical manifestations which, in our judgment, can be accounted for by no reference to mere muscular action. A lady, for example, places her fingers gently upon a table or stand. Soon the object moves after her around the room, while yet no other person is in contact with the object, or within many feet of it, and her own fingers so lightly touch the smooth surface, or top of it, that the parts touching it are not perceptibly flattened in the least, on the one hand, nor the blood at all driven from under the finger-nails, on the other. Who does not perceive that the movements of such objects, under such circumstances, can be accounted for by no muscular pressure and action whatever? Yet we feel quite safe in vouching for the reality of just such facts,—facts which are produced by individuals utterly repudiating spiritualism in all its forms,—facts utterly

fatal, as we shall hereafter see, to its claims as far as physical manifestations are concerned.

That *intelligent* communications are obtained in the spirit-circles, communications undeniably indicating their origin from some intelligent cause, is now doubted by none, and admitted by all. Equally undeniable is the fact, that correct responses are often obtained to questions pertaining to subjects of which it is honestly believed, and no reason exists for an opposite conclusion, that all present are profoundly ignorant but the inquirer and the spirit with whom he is professedly communicating. A stranger, for example, from the most distant part of this or from any foreign country, in passing through a place which he never visited before, and in consequence of an unexpected delay, goes immediately and unattended from the cars into some spirit-circle, where no one could have expected him, and where he meets not a solitary countenance or form of which he has the most distant recollection. To all present, therefore, he has the best possible evidence that he is an utter stranger, whose visit no one anticipated. This individual, under these identical circumstances, may call for the spirit of some departed friend, and, on inquiry, obtain correct answers pertaining to the name of that spirit, his age at the time of his death, &c., the only condition required being, that the inquirer shall himself know what answers should be given, and, at the time, have those answers distinctly before his mind. That facts of this character have occurred, we have the most valid evidence, and any one can verify them in his own experience, who will take the pains to do it. In the same circumstances, and on the same condition, individuals can obtain in some instances, to say the least, correct answers to purely *mental questions*. A gentleman of our acquaintance, for example, called upon the Misses Fish and the Foxes, when they were in Cleveland, Ohio, and to the supposed spirit of a departed sister put mentally, and in succession, twelve questions, and to each received a perfectly correct answer, he knowing in each instance what the answer should be, and having his attention at the time definitely fixed upon it. This, and cases of a similar kind, which might, without number, be adduced, establish the reality of the class of facts under consideration. The gentleman above referred to, however, wrote out these same questions upon twelve blank cards, and putting them together, the sides containing the questions from him, and having shuffled them so that he could not know what question he might put down in any instance, put each one successively upon the table, the question downward, and requested the same spirit to give an answer to the question laid down, while he should write that answer upon the blank side. Twelve answers were accordingly obtained, but one of which was, in any form, correct; the answers, in most instances, having no relation whatever to the question put.

Physical Manifestations.

As an example of the physical manifestations, we will adduce the following case, which is so well attested as to remove from all candid minds all rational doubt in regard to its actual occurrence. Among the signers of this document, which originally appeared in the "Springfield Republican," we have the names of such men as Professor Wells, of the Cambridge Laboratory, and other individuals of such character for intelligence and integrity, as to demand the credence of the public. The document is entitled "The Modern Wonder—a Manifesto!"

"The undersigned, from a sense of justice to the parties referred to, very cordially bear testimony to the occurrence of the following facts, which we severally witnessed at the house of Rufus Elmer, in Springfield, on the evening of the 5th of April:—

"1. The table was moved in every possible direction, and with great force, when we could not perceive any cause of motion.

"2. It (the table) was forced against each one of us so powerfully as to remove us from our positions, together with the chairs we occupied—in all, several feet.

"3. Mr. Wells and Mr. Edwards took hold of the table in such a manner as to exert their strength to the best advantage, but found the invisible power, exercised in the opposite direction, to be quite equal to their utmost efforts.

"4. In two instances, at least, while the hands of all the members of the circle were placed on the top of the table, and while no visible power was employed to raise the table, or otherwise move it from its position, *it was seen to rise clear of the floor, and to float in the atmosphere for several seconds*, as if sustained by a denser medium than the air.

"5. Mr. Wells seated himself upon the table, which was rocked to and fro with great violence; and at length it poised itself on two legs, and remained in this position for some thirty seconds, *when no other person was in contact with the table.*

"6. Three persons, Messrs. Wells, Bliss, and Edwards, assumed positions on the table at the same time, and while thus seated the table was moved in various directions.

"7. Occasionally we were made conscious of the occurrence of a powerful shock, which produced vibratory motion of the floor of the apartment. It seemed like the motion occasioned by distant thunder, or the firing of ordnance far away, causing the tables, chairs, and other inanimate objects, and all of us, to tremble in such a manner that the effect was both seen and felt.

"8. In the whole exhibition, which was far more diversified than the foregoing specification would indicate, we were constrained to admit that there was an almost constant manifestation of some intelligence which seemed at least to be independent of the circle.

"9. In conclusion, we may observe that D. D. Home, the medium, frequently urged us to hold his hands and feet. During these occurrences the room was well lighted, the lamp was frequently placed on and under the table, and every possible opportunity was afforded us for the closest inspection, and we submit this one emphatic declaration: *We know that we are not imposed upon nor deceived.*

"D. A. WELLS. W. BRYANT.
B. K. BLISS. W. EDWARDS."

To present the whole subject at one view, we now adduce the following from "Rogers' Philosophy of the Mysterious Rappings." The authority by which the occurrence of the facts stated is verified, is of such a character as to place those facts out of the circle of rational doubt:—

The following also were developed at the house of the Rev. Dr. Griswold, New York. Among the persons present were Mr. J. F. Cooper, George Bancroft, Rev. Dr. Haws, Dr. J. W. Francis, Dr. Marcy, Mr. N. P. Willis, William Bryant, Mr. Bigslow of the *Evening Post*, Mr. R. B. Kimball, Mr. H. Tuckerman, and General Lyman.

The mediums present were members of the Fox family.

Only Mr. Cooper, Dr. Francis, and Mr. Tuckerman seemed to come into close rapport with the psychological and nerve-centres of the mediums. The others, according to the account, could develope few or no intelligent characteristics, and could obtain a development of the physical force alone; thus giving us a plain hint of the distinction we are to observe between the physical phenomena and the psychological characteristics which frequently accompany them.

The physical force stands alone *as* a physical force. It bears no characteristics in its actions but that of itself, unless some other is made to impress its characteristics upon it, as the intelligent will does in the movement of the arm. But the physical force may move the arm without intelligence, as in spasms, &c.

The following peculiar physical phenomena were developed during the evening: One little peculiarity hitherto unremarked (*a*) came to our notice. The questioner's seat (to give him access to paper and pencil) was on one side of the table, and, chancing to occupy the place between him and the ladies (mediums), we (Mr. Willis) had accidentally thrown our arms over the back of his chair. Whenever the knockings occurred, we observed that his chair was shaken, though our own intermediate chair and the two standing immediately behind were unmoved. We called attention to it, and it was corroborated by the other gentlemen.

(*a*) Taken from *Willis's Home Journal.*

"With such heavy weight in the chair as Mr. Cooper's or Dr. Francis', it would have taken a blow with a heavy hammer to have produced so much vibration." The table was not moved, though requested.

An experiment was tried as to what would be the effect with one of the ladies alone, or with two without the third, or with a gentleman and one or two of the ladies. "The strongest knockings were on the floor beneath, when the widow and her two sisters stood anywhere together. With two of them the knockings were fainter. We placed ourselves between the widow and one of the young ladies," says Mr. Willis, "and no sounds were produced as a consequence. With one of the mediums alone there were no phenomena." These peculiar characteristics of the conditions are worthy of careful consideration. We have found several cases where no decided physical phenomena could be evolved without the presence of two persons, both in a palpable abnormal state, and we shall give one case in a future chapter, where three clairvoyants were required.

All such conditions clearly indicate the physical agency to belong to the physical organism. These characteristics will be considered in a more fitting place. We would simply direct attention to them here. The most important phenomena of this character, however, have not been sufficiently observed to develope their laws.

But to return. An experiment was tried of another kind in this circle at Dr. Griswold's. Three gentlemen placed themselves on the outside of the door and three on the inside, and watched it closely, when suddenly it was knocked with great violence, without any visible instrument. "We witnessed this," says Mr. Willis, "with one hand upon the panels; and what can it be but the exercise of a power beyond anything of which we have hitherto known the laws? That it is subject to human control," he continues, "seems probable, for it acts at present in a certain obedience to human orders (not of the medium, however), and is most obedient to those who have used it longest."

Mr. Ripley, of the *Tribune*, in speaking of the same sitting, says: "The ladies were at such a distance from the door as to lend no countenance to the idea that the sounds were produced by any direct communication with them." "Other sounds were made which caused sensible vibrations of the sofa, and apparently coming from a thick hearth rug before the fireplace, as well as from other quarters of the room."

Rev. H. Snow, in his work entitled "Spirit Intercourse," gives an apparently well-authenticated case in which a medium was himself "raised entirely from the floor and held in a suspended position by the same kind of invisible power." For ourselves, we have no disposition to question such a statement, knowing as we do that cases perfectly similar and analogous are

attested by evidence which we are compelled to regard as valid.

That musical instruments have given forth musical sounds in these circles when no persons were touching such instruments, we also freely admit, and admit for the reason that the facts of the case are affirmed by authority which we cannot, with the consciousness of moral integrity, call in question. A very intelligent Christian lady, an utter disbeliever in Spiritualism, for example, told us, that in her presence a guitar was once placed in the middle of the room; that when no one was within several feet of it, musical sounds proceeded from it; and when she extended toward it, it was instantly raised up and attracted to her hand, just as the appropriate objects are drawn towards the magnet when it is placed near them; and that when she laid hold of the instrument, it was, by a force which she could not control, wrested from her hand, just as objects charged with electricity are wrested from our hands when we grasp them. Facts affirmed by such testimony we regard ourselves as bound to admit.

We now invite very special attention to a class of facts of the most absolute and decisive bearing upon our present inquiries. We refer to certain observations and experiments which individuals have made with this one specific purpose in view—namely, to determine the *location* of the cause of these manifestations, whether that cause pertains to the minds in the circles, or to disembodied spirits out of them.

We will now attend to a case of perfectly similar characteristics connected with these manifestations. A gentleman of our acquaintance, now a member of the bar in Cleveland, had a discussion on this subject, some years since, in North Adams, Mass. That he might be prepared for the discussion he called, in company with the leading physician of the place, upon a neighbour whose daughter was a medium, and requested the privilege of witnessing some of the "spirit" phenomena. The first evening was spent in witnessing physical manifestations. With these they were perfectly astonished, and even confounded. The medium, placing simply the ends of her fingers upon the top of a large table standing in the centre of the room, called upon the spirit of an individual who had previously died in that place to move the object referred to. It was moved accordingly. Our friend got under the table, and attempted to hold it still; yet the object, and himself with it, was drawn over the floor, his utmost efforts to the contrary notwithstanding. The physician placed a sheet of paper under the fingers of the medium and drew it out while the table was being moved, and that without any sensible indications of pressure upon it.

On the next day they agreed with three individuals, leading members of the three denominations of the place—one a Congregationalist, one a Baptist, and the other a Universalist—to meet

them the evening following at the house referred to, neither being informed at all of the object to be attained, nor of the fact that either of the others was to be there. When the circle was formed, the Congregationalist was introduced. The same spirit was present that moved the table the evening before. In answer to inquiries put by the individual last referred to, the Evangelical view of heaven, hell, and eternal retribution was absolutely affirmed as immutably true. To the question, What mode of baptism is correct? *Sprinkling* was rapped out. With a pledge of secrecy, he was then dismissed and the Baptist called in. In answer to inquiries made by the latter, the same view of eternity as before was given. To the question, What mode of baptism is correct? *Immersion* was rapped out. He being dismissed, the Universalist was called in. The same spirit, which had given the responses above stated, now denied the doctrine of retribution altogether, stoutly asserting the doctrine of universal salvation, and manifesting a total indifference to the question of baptism in any form. When the audience had assembled to listen to the discussion, these individuals were called upon to testify to the spirit-communications which they had received and did so with a result which we need not specify. In a similar manner, every sentiment held by every people or sect on earth might have been absolutely affirmed and denied by the spirit which responded in that circle, or by any other spirit which appeared there, or ever appeared in any other circle upon earth, and that for the identical reason, that precisely similar answers can be obtained from the mesmeric subject. Who, in the presence of such facts—and this is the immutable character of these manifestations, the world over—can doubt their origin? It would be an impeachment of the common sense of our readers to argue the question.

The above case, while it bears with the most decisive weight upon the question of the location of the real controlling cause of these manifestations, clearly evinces the reality of an important fact—the honesty and sincerity of some mediums—of one, to say the least. Any person who was voluntarily, and by known but occult and deceptive means, producing these rapping sounds, would never, at the same sitting, rap out such contradictory communications. Many other facts, equally palpable and undeniable, evince to our minds most indubitable evidence that many other mediums are not intentionally deceiving the public, but honestly suppose themselves organs of communication between the inhabitants of this and the spirit-land.

Precisely similar and analogous experiments were made by Miss Catherine Beecher, with precisely similar results; experiments made in the most decisive forms, and so varied and repeated that a mistake is hardly conceivable and by no means supposable. With the same identical results a gentleman made very extensive experiments in the various circles in Great Britain. At one time,

for example, he *imagined* that a great fortune had just fallen to him by legacy in a certain city. He immediately received from the spirits an important communication, corresponding in all respects to his own imaginings and having no other foundation in fact. What higher evidence can we have that any facts are exclusively mundane in their origin than is here presented in respect to the facts under consideration?

The case which we next cite is, if possible, more fundamental and decisive in its bearings than any others that we have yet adduced. A gentleman of the city of Cleveland made very extensive and careful experiments and observations, for the purpose of satisfying his own mind in regard to the origin of these manifestations. He entered upon the inquiry with the earnest hope of finding valid evidence that these manifestations come from disembodied spirits. He was equally dissatisfied with the doctrine of eternal retribution, on the one hand, and with that of Universalism on the other. The general teachings of the spirits appeared to affirm an intermediate view, which correspond with what, to say the least, he wished to find reliable evidence for believing. He accordingly put and received answers to upwards of one hundred questions, in the circles of Mrs. Fish and the Foxes in this city. A large portion of these questions, probably more than one half, as he says, were asked mentally. The following are the most important facts developed:—1. In every instance, without exception, the answer referred to the *subject-matter* inquired about. Here he found the immutable relation of antecedence and consequence, cause and effect. 2. In every instance in which he knew what the answer should be, a perfectly correct one was obtained. 3. When he was in doubt what the answer should be, those doubts were reflected and nothing positive asserted. For example, a sister of his had died of a lingering disease, of the nature of which there was doubt among the physicians and in his own mind, some five and six different diseases having been assigned and none fixed upon with certainty. He inquired of the spirit of that sister what was the disease of which she did die? All the diseases which he had heard suggested as the cause, and none others, were named, each designated with very feeble raps, and neither positively affirmed as the real cause. So in all similar cases. 4. When he was mistaken in regard to the facts about which he inquired, and when the spirits of whom he was inquiring did know, and could not have forgotten, the answers invariably corresponded with his mistaken apprehensions, and not with the real facts, as he subsequently became informed, and as they were known to the spirits professedly answering. For example, he inquired of the spirit of his own sister her age at the time of her death, he supposing, at the moment, that twenty-eight was the true answer, and that number was rapped out. On a subsequent reference to the family records, he found that she was really aged

at the time upwards of thirty years. A friend of his had lost his life in California by drowning, and that, as he had been informed, in a certain river, by accidentally slipping through a raft of logs. All the facts of the occurrence were given, professedly by the spirit of that friend, as he had supposed them to be. From four individuals present when the event occurred he subsequently learned that his friend actually came to his end in another part of the State, in another river and by a totally different accident. The answer corresponded with the supposed, and not with the real, facts as known to the spirit professedly communicating. He put a question to another spirit pertaining to a transaction about which, as he well knew, that spirit was perfectly informed and himself as he subsequently learned, had been misinformed. The answer corresponded with his misinformation and not with the real facts, as known to the spirit professedly responding. 5. To every question, without exception, pertaining to subjects of which he was ignorant, a wrong answer was obtained. As the result of his experience, he drew the following inferences:—

1. That disembodied spirits can have no connection with these communications. . . . 2. That no information is ever communicated, in these circles, beyond what is previously known to the inquirer. We suppose that not one person in a thousand would draw any different conclusions from similar investigations in these circles, investigations conducted upon similar principles. The only exceptions that do occur are, as we suppose, some solitary revelations through clairvoyance,—revelations which no one has reason to expect when he resorts to these circles, and certain answers corresponding to, and evidently occasioned by, acts of imagination and conjecture.

CHAPTER IX.

PHENOMENA OF PSYCHISM.

Theory of Automatic Motion.

The hypothesis I have ventured to advance is, that the force emanates from the nervous system of the Psychic; that the Psychic is in a state nearly allied to, if not identical with, Somnambulism, in which the brain acts independently of the external senses; that in this isolated condition the Conscious Self obtains impressions of external existence through some other medium than the external senses and *perceives* without their aid. The phenomenon of sounds and motions made in intelligent response to intelligent questions may thus be rationally explained, without assuming the agency of disembodied Spirits of the dead—a theory to which the phenomena themselves present so many and such apparently insuperable objections. An entire volume would not suffice for all the evidence supporting this solution of the problem. In the present treatise, designed to be merely an outline of the Mechanism of Man, I must content myself with briefly submitting the most prominent of the proved facts to the patient consideration of those who may undertake a more profound inquiry, with desire and design to ascertain the very truth in a matter of such transcendent importance in its relationship to the present and the future of MAN.

There remains one other question. In the honest pursuit of Science we must frankly recognise failures as well as successes. Granting that the force proceeds from

the Psychic and is directed by *his* intelligence, *how* is it so directed? *How* can a solid body be moved by something non-solid and imperceptible? How can there be a mechanical force without a mechanical agent?

The honest answer is, that as yet we do not know. But we *know* that motion, caused by an unseen and unfelt force, without material contact, is neither a new nor a strange fact in nature. It is continually presenting itself to us, but especially in the operations of the magnet. After centuries of observation and experiment, Scientists have failed to discover what the *thing* is which, passing from the magnet to the steel, seizes the substance of the metal and drags it to the magnet. We can only know a force by its manifestations. It cannot be seen and handled. Something passes from the electrical machine to the finger and we feel the action of a force upon the molecules of which the finger is constructed. But investigators have failed to discover *what* the imperceptible thing is that strikes the finger and which, when concentrated, can paralyse the strongest arm. We *know* of the existence of this powerful thing, not by any sensible perception we have of the thing itself, but by its action upon other perceptible things. The thing we call Psychic Force is as imperceptible to the senses as is the thing we call the magnetic or the electric force. That unseen thing we call electric force passes into the electric battery and accumulates there; that unseen thing we call the magnetic force can clutch and draw the steel without *perceptible* threads of communication. Surely it cannot be more improbable that the Psychic Force should be conveyed to a table and cause it to move by some such invisible process as that by which the steel is invisibly moved by the magnet. Such an action would not be more wonderful, and certainly not at all more inexplicable, than the action of the other natural forces. To the objection that, as Psychic Force must have existed as long as Man has been, why was it not discovered until now? the answer is patent. The Electric, the Galvanic, and the Magnetic

forces (if they be not one force) have been about and controlling Man for the same period of time, precisely as now they are, and yet the discovery of them is recent, and such practical knowlege of them as we possess has been gained almost within our own day.

If the Nerve Force can contract the muscular fibre and impart to the arm a power which enables it to lift a heavy table by actual contact, surely there is nothing impossible, nor even improbable, in the suggestion that, in certain abnormal conditions, the same nerve force, that makes the muscles move the table by actual contact, may be projected beyond the extremities of the structure and do, without the touch of the fingers, what, in the normal condition, it can do only by actual contact. I am not asserting that so it is. The *modus operandi* of the Psychic Force is still as great a mystery as is the *modus operandi* of the Magnetic Force. Being ignorant of the thing operating in both of these forces, it is impossible for us to affirm of either that it *cannot* operate thus or thus. We must be content to note the manifestations of their action upon perceptible bodies (by which alone their existence is revealed to us) and, seeing what are the results of action, we may be enabled, perhaps, to form some judgment of their constitution from those results. In this, as in almost all scientific investigations, it is wholly a question of *fact*, to be determined, not by argument *à priori*, but by observation, experiment and test. We must first ask "*is it?*" before we ask "*how can it be?*" *If it be*, patient examination of the phenomena, exhibited under various conditions, will assuredly reveal to us, sooner or later, *how it comes to be.*

I may not pass without notice a phenomenon of Psychism which is often adduced as a triumphant proof of its supra-mundane nature. Psychics sometimes *write*, with what is certainly astonishing celerity, in the dark as well as in the light, with eyes closed as with eyes open. I have seen, for instance, a sentence of twelve words, every letter being distinctly and perfectly formed, written

in the twinkling of an eye, by a mere sweep of the pencil; that is to say, as rapidly as the hand could be passed across the paper. In another experiment, fifteen clearly legible lines of small writing (being a passage from *The Spectator*) which, with all possible speed, I was unable to copy in less than ten minutes, was written, or rather flashed upon the paper, in thirty-five seconds. I know a Psychic who, in the state of trance, always *writes backwards* ten times more rapidly than I can write in the usual fashion. In her normal state she is unable to write a word thus, save as slowly and with as much difficulty as others could so write. This phenomenon is at once assigned by the Spiritualists to the agency of Spirits seizing and guiding, as they contend, the hand of the Psychic. But wherefore Spirits? Why, when the Psychic visibly commands his own hand, should it be concluded that some other power has taken possession of it, and that it is the act of a Being of whose presence we have no proof whatever? Is it not more reasonable to seek for the cause (at least in the first instance) in the same organization that guides the hand on other occasions? Is this solution to be rejected merely because the action is abnormally rapid? The more reasonable course is to inquire if there be any abnormal conditions of the organism that *might* produce such a result. So inquiring, I suggest the following physiological and psychological explanation of this seeming miracle.

The Psychic is in a condition of Trance. In this condition, as already described, he *acts* the dream which we, when dreaming, *believe we act, but do not act.* In dream, the mind works with marvellous rapidity and has a measure of time of its own quite other than the measure of time in waking life. What to waking existence is a minute, in dream life appears often a day, a week, a month, a year. Why? Because in dream the mind, acting without the slow motions of the senses, passes through many conditions in a few minutes—that is to say, it entertains a crowd of ideas and of imagined actions which, in waking reality, under the drag of the senses,

would have occupied a month. If, for instance, we dream that we are writing. We believe that we are writing with the hand. The brain goes through the entire process it would have gone through if the action of the muscles of the hand had actually followed the mental action and we had really written what we dreamed we had written. Sleep has severed the communication between the brain and the muscles, and therefore the hand does not in fact obey the mind. But if the muscles, at the moment of the dream, *could* follow the direction of the brain, they would act as rapidly as the brain, to the limit of their capacity for motion. In such case, that which the hand could not have done in five minutes under the direction of the waking Will, (which works slowly) would be done in five seconds if the hand were directed by the dreaming brain, which works with wonderful rapidity. The Psychic, being in the condition of Trance, dreams that he is writing. But the special feature of Trance, as distinguished from sleep, is that the body obeys the brain and *acts* the dream. The brain rapidly conceives the entire process—the thought, the words in which to clothe it, and the writing in which to express it. The hand, obedient to the brain, in this state of Trance acts with almost equal speed, and thus may the rapid writing be explained by a purely Psychic process, without resorting to what is, at the least, a very improbable hypothesis—that some Spirit of the Dead has taken manual possession of the arm and is moving the fingers with the speed we see.

I cannot conclude this branch of the subject without reference to an objection often made to the reality of the Phenomena here described, that they or many of them are imitated by conjurors at public exhibitions. There is of course *no* phenomenon in Science that mechanical contrivance could *not* imitate. Every experiment exhibited by Professor TYNDALL at the Royal Institution could be exactly imitated to the eye at the Egyptian Hall by a little sleight-of-hand and a great deal of ingenious machinery. But this would not be accepted for a

moment as any evidence whatever that Professor TYNDALL's exquisite phenomena, by which *he* proves the existence of the magnetic and other natural forces, are conjuring tricks only. The ready answer of Professor TYNDALL to such an argument would be, "Produce the same phenomena *under the same conditions* as I do. Come alone in a cab to this Institution; bring nothing with you; introduce no confederate; let me examine your pockets; stand at this table with me and with all eyes upon you. If *then* you produce *the same phenomena*, I will admit that my experiments are of no more worth than yours and cannot be accepted as evidence to support my theory of the existence of a magnetic force."

The same answer is given by the assertor of the phenomena of Psychism. "To *imitate* them is nothing; ingenuity and mechanism can imitate anything. To prove their unreality, you must produce them *under the same conditions*. Come to my drawing-room, where no mechanism has been prepared. Bring no person and nothing with you. Submit to be searched and everything but your clothes taken from you. Seat yourself with a party of *my* friends at the table. Suffer your hands to be held by two of the investigators and their feet to be placed upon your feet. *If in these circumstances and in this position*, with all eyes upon you, so that your slightest movement must be seen, you will do what is done in the presence of a Psychic—that is to say, if you will make the table resound with blows, rise and fall at command, mount into the air two or three feet and descend as gently as a feather; the chairs, sofa, side tables and pianoforte, far out of your reach, advance from their places to the middle of the room; an accordion play half a dozen tunes when held at the end opposite to the keys; two or three chairs mount upon the table; a handful of flowers on the chimney-piece, three yards distant, pass untouched from the vase to the table; ponderous volumes leap from the bookshelf over a space of eight feet; a musical box weighing 14lb. rise to the

ceiling and fly round the room, playing the whole time—you will be entitled to say you have produced the same phenomena by your art, but not otherwise." I repeat, that if these things are done by any conjuror in the same rooms and under the same conditions as they are daily to be witnessed in the presence of Psychics, the phenomena would then be properly adjudged to be conjuring tricks only and not psychical phenomena that demand the investigation of Science.*

Moreover, it is admitted that years of laborious practice are required for the performance of conjuring feats. If the phenomena of Psychism are merely conjuring tricks, the Psychics must be the most accomplished conjurors in the world. How or when have they learned that difficult art? Many of them are children not ten years old. One of the most powerful Psychics in London is a young lady aged eighteen. How could *she* rival Dr. Lynn? My friend, the M.A. of Oxford, is an accomplished classic, but he cannot even "force a card." And as for the paid Psychics, if they really do it by clever conjuring, they would prefer the making of a certain fortune as avowed conjurors to the poor profit and infinite abuse they find as Psychics.

Again, the contrivances by which all the conjuring tricks are performed are well known to experts. The secret of the performance of most of them may be learnt for five shillings. The mechanical tricks can be bought at any toy shop. A few visits to the most accomplished conjurors enable a moderately keen observer to discover the *modus operandi* of every trick. But it is a significant fact that no person of intelligence has ever yet

* Maskelyne and Cooke were invited to exhibit at a private house and informed the inquirer that he must send a waggon and horses for two tons of machinery necessary for their *spiritual* performances. Dr. Lynn was publicly offered 1000*l.* if he would produce the same phenomena as Messrs. Hearne and Williams, under the same conditions, in a private room, and he declined the offer, though publicly professing to reveal the mystery of their manifestations.

discovered *how* the phenomena of automatic motion and sound are produced. No man has patiently investigated them without coming to the conclusion that they are genuine.

There are other asserted phenomena, that have undoubtedly been made the subjects of impudent imposture, partly by the facilities offered for fraud, and partly by the credulity of persons who are attracted by curiosity merely and not for scientific research. *We are dealing here with those psychic phenomena only that are capable of demonstrative proof by satisfactory evidence.*

CHAPTER X.

MORE PHENOMENA OF PSYCHISM.

THE first and scientifically the most interesting and important of the Phenomena of Psychism are motions produced without muscular contact or connection — *apparently* "action at distance;" this action, whatever its source, being *certainly directed by some Intelligence.* What that action is and whence that Intelligence, are problems, the solution of which is the proper province of Psychology.

The phenomena of apparent automatic motion and sound are described in a previous chapter. Doubtless the details were tedious. But the importance of this phenomenon, if real, is so immense, the mass of evidence by which it is proved is so great, that briefer treatment of it was impracticable. If those phenomena be real, even though all others be false, the existence of a *Psychic force* is established, and other allied phenomena are made more probable. If, on the contrary, the proof of sound and motion fails, the rest must be discredited also.

Many other alleged phenomena claim notice as Psychic, but may be treated more briefly, for the greater portion of them are only further developments of the same intelligent force,—whether it be muscular, psychic, spiritual, angelic, or demoniac—for all these names have been given to it. There are some other phenomena in which, so far as investigation has proceeded, a Psychic Force cannot be traced and which, therefore, appear to demand a different solution.

This being admitted, it must be clearly understood that in this treatise we are concerned with so much only of the alleged phenomena as are *distinctly psychic* and therefore associated with the Mechanism of Man. If there be any proceeding from other sources, whether angelic or demoniac—whether from Spirits of the Earth, of Water, or of Fire, whether from Elementary Spirits (as the Theosophists contend), or from Demons as some Theologians contend, or from races of beings non-molecular and therefore imperceptible to us, but inhabiting the world with us (as many think), *such phenomena are not within the purview of these pages.* The question "If the agents in the alleged phenomena be Spirits of the dead?" is pertinent to the present inquiry into the Mechanism of Man, for if, of the multitude so asserted, *but one be proved,* the existence of Soul, as a part of that mechanism, would be *demonstrated* beyond further doubt or question. So also would be determined the still greater and more important question, does the Soul survive the destruction of the body? For this reason, whatever of the phenomena appear to be *Psychic* come properly within the province of Psychology. I say, with sorrow, that having sought earnestly and laboriously for a satisfactory solution of this problem, I have not found it. Nothing that I have seen, under the most severe test conditions, has sufficed to bring to my mind, although eagerly desiring to find it, *proof sufficient for conviction* that Spirits of the Dead are the agents. Indeed, the more I have experimented and weighed the *proved facts,* the more I am compelled to the reluctant conclusion that Spirits of the Dead are *not* the intelligent operators in the phenomena.

Let us briefly examine the most interesting of them.

Intelligent ideas, expressed in correct language, are often written by what appears an *automatic* action of the pen or pencil. The Psychic grasps a pencil; his hand writes with extreme rapidity, while he is seemingly in the unconsciousness of trance, with eyes closed, or, if awake, conversing on quite other topics. The *planchette* was

the instrument at first employed in this experiment; but it was found that the hand could act without it. Writing is as readily performed by the left as by the right hand, and backwards as forwards. Sometimes the words are in a language unknown to the writer. Sometimes they are the exact imitation of handwritings and signatures of persons the Psychic had never seen. But always some person near him knew the language or the writing. This is a frequent phase of the phenomenon with private Psychics. Professing to be a communication to me from a near and dear deceased relative, the signature resembled hers so exactly that, when placed among others, it was impossible to detect a difference. But this was written *in my presence*, when the Psychic whose hand inscribed it was in a state of apparent unconsciousness and could not see what the pencil was doing and I am sure he had never *seen* the signature. The psychological explanation is, that it was in *my* mind, not in *his* memory. The impression in my mind was sympathetically echoed, as it were, by his mind, and the idea so excited in his mind was drawn by his hand.

The popular theory is, that the invisible Spirit of the person supposed to be communicating seizes the hand of the unconscious Psychic and guides it in this writing. But it is not merely a motion of the rigid limb. To write thus, the whole mechanism of the hand, arm, brain and intelligence must be employed.

Others, recognizing this difficulty, say: "The Spirit takes possession of the *brain* and so commands the mechanism of nerve and muscle." But this is only the substitution of one difficulty for another; it does not advance the solution by a step.

I venture upon a more reasonable explanation—at least more in accord with science. The writing is an act of *Unconscious Cerebration*. One brain is working thus, while the other brain is otherwise employed.

But whence comes the *knowledge* contained in the writing? By *mental sympathy and communion*, improperly termed "thought reading." It has been

observed that nothing is thus communicated that is not known to some person present. I had in my mind the imprint of my relative's signature that was impressed upon the mind of the Psychic by the physical process described in the chapter on mental communion (*ante*, p. 22) and by his hand it was transmitted to the paper, precisely as all of us are enabled to express, by drawing it with our hands, a picture that is in our thoughts.

This automatic writing is, as stated before, often accomplished with wonderful rapidity. The eye cannot follow the motion of the hand. As a spark whirled at the end of a string seems to us a continuous circle of fire, because of the slow movement of our nerve mechanism in the act of perception, so does this motion of the pencil seem to the spectator almost as one stroke.

The scientific explanation of this seeming wonder is, that in our normal condition the mind moves far faster than the bodily mechanism it directs. In writing, it frames a sentence before the hand can write a word. In the Psychic condition, the mind, partially severed from the senses, is less clogged by the conditions that attend action in the normal state, and therefore moves the hand with something approaching to its own rapidity of action.

Writing with the *planchette* may be explained in like manner. It is effected thus. The Psychic places his hand upon the platen. After an interval, more or less (the facility being increased by practice), the instrument begins to move. The pencil traces, sometimes slowly, sometimes rapidly, intelligible and intelligent sentences. In this manner a large sheet of paper may be often seen to be covered with very legible writing. In this there would be little to surprise, were it not that, for the most part, the writing is manifestly *automatic*—that is to say, it is accomplished without any apparent guidance of the hand by *the Will* of the owner. This is shown in various ways, such, for instance, as maintaining conversation on quite a different subject while the hand is upon the instrument—or reading aloud a book, or employing the other hand in some work requiring mental attention; or still

more conclusively, when the hands of *two* persons are upon it, for it is very improbable that they should mentally agree to write the same words. If any reader deems it possible thus to conduct at the same moment two distinct operations requiring distinct action of the mind, he should make the experiment by trying two different motions with his hands or fingers at the same moment, or while reading a book aloud to write a letter on another subject. He will at once discover that the writing in question cannot be so accounted for. The explanation, however, is readily found, if it be looked upon as an act of "Unconscious Cerebration" (as it is termed by Dr. CARPENTER), meaning by this that one brain is *un*consciously directing the hand, while the other brain is *consciously* reading or talking.

This is the more probable if we examine the character of the greater portion of these automatic scribblings. When they are not the reflexes of other minds present and *en rapport* with the Psychic, they are identical with the mental character, the knowledge, and the sentiments of the Psychic. For the most part they are pretty platitudes. When statements are made, they are as often false as true. If they relate to something the Psychic knows to a small extent only—the additions to the facts are manifestly merely guesses. In short, the brain, which is working unconsciously, is really doing nothing more than *dreaming*, and for the explanation of the physiology and mental action of dream reference must be made to the chapter on that subject in a former part of this volume (*ante*, p. 109).

Another phase of Psychism admits of explanation in accordance with known natural mental conditions. The Psychic falls into a state of Trance that bears a marked likeness to the somnambulistic condition and which appears essential to the development of this as of many others of the phenomena of Psychism—its physiology being a temporary severance of the mechanism of the mind from the external senses. With eyes firmly closed and his aspect and demeanour changed, the Psychic takes your

hand. He says he is about to read much of the history of your past life. In fact, he proceeds to do so. Marvellous as it appears to you at the moment, he tells you of events in your existence, long past as well as recent, of persons, of things, of places, sometimes even naming them and always describing them with more or less of truth and fullness. Incidents known to yourself only, or at least which could not possibly be known to him, are narrated, not elicited by question and answer (as is the "explanation" of objectors who have never witnessed it), but spoken without a word on your part to suggest the thought. This phenomenon of Psychism occurs too frequently to be merely a "happy guess," as some have called it, or "accidental coincidence," as it has been termed by others. If any reader doubts, he may readily satisfy himself by trying, with two or three strangers, to "guess" at incidents in *their* lives. He would find that "the coincidence" will not occur to him once in a hundred guesses—whereas the Psychic is right in *his* reading at least four times out of five.

But this apparent marvel also admits of scientific explanation by reference to the scarcely disputed phenomenon of *mental sympathy and communion*, treated of in a preceding chapter (p. 22). If so it be, the process is very much in this manner. You are told that your past life is about to be narrated to you. This at once calls up in your mind the most vivid of the memories of that past life and all the associated memories come with them involuntarily and unconsciously. If you carefully examine the condition of your mind, you will discover that these recollections vary in distinctness of form and vividness of colour. Some are as definite as are objects seen by the eye; some are hazy and only partly conceived, like objects in a dream. If you note carefully the descriptions given to you by the Psychic, you will find that they reflect your own mental pictures as nearly as words can paint them. If your own idea is imperfect, so is his sketch of it. If your mind is wandering about, seeking, as it were, for memories, so is his. When he describes

some event, that description, echoing your own mind, calls up other associated memories, which again are reflected upon his mind and described by his lips. It is in fact what is popularly, but improperly, called a case of "thought-reading." The process by which this very interesting mental condition is produced is fully stated in the chapter devoted to it, and to that the Reader is referred.

CHAPTER XI.

OTHER PHENOMENA OF PSYCHISM.

I HAVE preserved careful notes of one hundred and twenty-seven experiments in Psychism, tried for purposes of science only, with strict regard to scientific methods of observation, and the great majority of them with the assistance of practical Scientists. In the course of these investigations, which have extended over a period of twelve years, I have witnessed all the alleged phenomena, under the strictest tests scientific ingenuity could devise, coming to the inquiry without prejudice or prepossession and with no other desire or prompting than for love of Science to ascertain what the truth is. In the course of these protracted experiments, I have witnessed a considerable amount of imposture among Psychics, real and pretended, and a still greater amount of credulity and self-delusion among spectators, attracted by merely vulgar curiosity, or influenced by unreasoning enthusiasm. Of these the great majority did not come to *learn* what the truth was, but with faith already formed, and so eager to find confirmation, that any evidence was accepted, however worthless. But it must be admitted also that as many came with an equal prepossession of absolute scepticism, closing their senses and their minds against *all* evidence, and as credulous in their incredulity as the votaries. When the facts were too plain to be denied, these sagacious observers contented themselves with explanations more improbable and impossible, and, if correct, far more marvellous, than the phenomena they professed so to account for.

In the preceding chapters I have dealt with some of the most frequent and familiar, but from a scientific point of view the most interesting and important, of the phenomena of Psychism. But almost every experiment presented, not automatic motions and sounds only, but other phenomena so closely associated that it would be impossible to describe each one separately and deal with it in a distinct section of this treatise. The only practicable course will be to report some of the most interesting of these experiments, selecting such as exhibited, under the most satisfactory conditions, the most instructive features, and then to comment upon those inviting remark or for which scientific explanations can be suggested.

I do not therefore propose to present the entire of the notes taken on each occasion. The full reports would claim another volume larger than this one. They will be given in a condensed form.

It is necessary to premise that all here reported is upon my own voucher. I shall relate nothing that has not been personally witnessed by myself, under strict test conditions, in *private* houses, where *mechanism* and *confederacy* (the two necessary conditions for conjuring) were absolutely excluded, and at which other witnesses were present who unanimously confirmed the reports I have preserved; these attesting witnesses being for the most part Men eminent in practical Science, Lawyers practised in proofs, and Men of Business skilful to detect imposture.

The facts being stated, an examination of them, with an inquiry into their probable causes, will appropriately follow.

Experiment VII.

On the evening of March 30th, 1878, at the house of a private friend, and therefore without possibility of aid by mechanism, nine persons being present, by all of whom the phenomena were witnessed, I was lifted, seated in my chair, and placed, so seated, in the centre of the table. It was done suddenly and with apparent ease. The whole party was at the time sitting round the table,

all hands being held and placed upon it. A few minutes afterwards Sir C. J., Bart., who was sitting opposite to me, was with and in his chair lifted upon the table in like manner. He was a much heavier man than I am. I have frequently seen the Psychics thus raised with their chairs and placed upon the table, but this is the only instance, in my own experience or in that of other investigators of whom inquiry has been made, of a person other than the Psychic being so treated. At the close of the experiment, trial was made of the capacity to accomplish the same feat by muscular effort. We found that the two strongest men in the room could not, without the utmost difficulty, lift me to a level with the table; but by no effort could they place me on the centre of the table, where I had been deposited instantly and easily by the Force (Psychic or otherwise) then in operation. As to my friend, the stout Baronet, they could not lift him two feet from the floor.

Was this an hallucination? Were we "biologised," and merely imagined the occurrence? The answer is, that I had to return from my unexpected eminence by jumping from the table; that it was seen by all present and made the subject of much jesting; and that all of us had the free use of our senses. If not an illusion, it was a reality. Both of us *were* so elevated. Was it accomplished by some trick of the Psychic? It is at least certain that he could have employed no mechanism, for he was in a private house. He had not the use of his hands and body, for he was being held in his seat on the other side of the table by two of my friends. Moreover, as proved by subsequent trial of it, he had not the physical strength so to lift us, even if he had so desired.

At the same experiment, in full light, the table was violently rocked and then thrice raised more than two feet from the floor, nobody touching it. Then I mounted upon it, and again it was lifted, *untouched*, with myself sitting upon it, upwards of two feet from the floor.

I have seen four times the Psychic suddenly raised in his chair and put upon the table. On one occasion, the table was so placed under the gaselier that there was not space for the chair and its occupant without passing his head between two of the arms of the gaselier.

This difficulty notwithstanding, instantaneously, and without any adjustment of the position at the moment or after, although the divergence of a tenth of an inch would have inflicted a stunning blow, the chair, with its living freight, was placed upon the only practicable spot upon the table, and with such precision that the head was lodged between two brackets, into which it could pass in the light only with difficulty and effort. Afterwards, repeated endeavours were made to perform the same feat and to place ourselves in the same position without a blow; but when attempted slowly and carefully we could not accomplish it. This occurred in my own house.

The Psychics in the above phenomena were "professional;" but they were subjected to crucial test conditions. The experiments were conducted in private houses and therefore were not aided by machinery. Hands were held and feet pressed by two of the experimental party during the exhibition of all the phenomena reported.

EXPERIMENT VIII.

At the private house of a friend, Mr. HOME being the Psychic, *in full light*, a chair came slowly gliding along the floor from the inner room into that where we were sitting. It came up to me, turned, and its back was presented to my hand. I placed my hand upon it and instantly it rose into the air so high that I was obliged to stand on tiptoe, my hand merely touching—not holding—it. Having thus risen to the full stretch of my body, I forcibly withdrew my hand, and the chair fell upon the *table*. It was a light cane-bottomed chair, and I wanted to replace it upon the floor. I was unable to lift it, although applying to it my whole strength. If it had been made of lead it could not have been more immovable. It had not been touched by any person. It was still lying as before. I grasped it again, applying the same force. Not merely was it not heavy now; it was as light as a feather. It seemed to have no weight, and I staggered and fell down with it from the excess of force I had applied. No person was near it at the time.

EXPERIMENT IX.

July 15th, 1870.—The Psychic was a lady, unpaid and in private life. A page of note paper was inscribed with the initials of the

persons present, for purpose of identification. It was brought to the room by a friend. Being placed with a pencil in the middle of the table, the gas was turned down. Instantly we heard the pencil lifted and the sound as of writing in the air. In thirty seconds, by my watch, light was turned on. The entire of the half sheet of paper was covered on both sides with very small but legible writing. I took it home to copy. Although written in the dark in thirty seconds, it required sixteen minutes for me to copy it, and I am a fast writer. It concluded with a long quotation in Latin, citing AULUS GELLIUS, and giving the vol. and page. I had some difficulty in finding so obscure an author, but on reference at the British Museum I discovered that the citation was correct, and so were the references to volume and page. The Psychic being a lady, it may be supposed that she was not likely to know Latin, and still less the works of that writer. It was, however, known to two of the investigators, and one of them, a learned Doctor, had seen the passage before, as an extract, although he could not remember where.

Here again we can trace the communication to mental sympathy and communion (or thought reading).

EXPERIMENT X.

A sitting, with Mr. C. FOSTER as the Psychic, in the house of a friend. A party of nine, chiefly authors and artists of distinction. No possible confederate; the Psychic, who had arrived in England two days before, being a stranger to all of us. Our names were purposely not stated to him, and he had no personal knowledge of any of us. Writing paper, purchased by us at a neighbouring stationer's, was placed at the far end of the room, wrapped in the parcel as we had bought it. We were invited to go to the table and write on small slips of our paper there the names of any persons deceased, then to crumple each slip into a small pellet. This was done, some writing three, some four or five names. I wrote three. Dr. Carpenter suggests that the Psychic must have watched the motion of the top of the pencil, and thus learned the name written by the point of it. This was impossible, for we all wrote where he could not see the pencil.

The pellets were thrown by us upon the centre of the table at which we sat. They were thirty-one in number. They were never touched by the Psychic, and being mixed together none of us could recognise even his own. The room was brilliantly lighted with gas which burned in the full blaze of a gaselier above the table. We were directed in turn to take some of the paper pellets from the heap and drop them slowly. When certain of them fell, vigorous blows were heard upon the table. That pellet

was separated from the rest unopened. Then a name was spelled by the usual process of calling the alphabet and answering blows. Fourteen were thus signalled, and always the names were correctly given, some of them being very uncommon ones. On the completion of the spelling of each we were directed to open the pellet. The name written upon it was in every instance that which had been indicated. The Psychic then inquired who had written it, and the writer was told that answers would be given to questions he desired to put to the person so named. Inquiries as to the date of death, the cause of death, the place of burial, the age, and such like, were thus answered, and, as the persons so answered asserted, with perfect accuracy. One series of questions by one of our most eminent authoresses was very remarkable. She had written the name of a governess who had died some years before, purposely to try if it could possibly be from information obtained. Miss M. inquired the age, the date of the death, the disease, the place where buried, and the inscription on the tombstone. All of these were, she said, answered correctly, although the name of the parish was one of those unpronounceable Welsh names which puzzle an Englishman, and which a stranger would not know, or knowing, would never rightly spell.

Presently a pellet was welcomed by sledge-hammer blows upon the table. Name spelled. "Any relation here?" "Yes, his widow." The following sentence spelled: "Do not fret, your son is innocent. It was the servant who did it." This was unintelligible to us. The lady was fearfully agitated. She took a letter from her pocket. "This," she said, "came by post to-day. It was opened by myself. No human eye has seen it. It is from my son, who is at school in Liverpool. He says that he has been accused of stealing a watch; that appearances were against him; that he feared he should be expelled in disgrace, but he assures me that he knows nothing of it."

So far I had only the testimony of others as to the correctness of the answers, but as all were persons of highest reputation and honour, I could not doubt them. No name that I had written had been recognised. I placed my hands under the table, unseen by any, and wrote on a slip of paper the name "William Trenchard;" it was that of a cousin who had died twenty-three years before. We had been fast friends. I had not mentioned his name, nor had he been in my thoughts until that moment. When it came to my turn to drop the pellets, I mingled this one with the rest. I had not done so ten minutes when the Psychic turned to me and said, "I see a form standing behind you—a young man with light hair and dark eyes, very pale—he is laying his hand upon your head as if to bless you. His name is William Trenchard. He wishes me to make you a communication from him." The Psychic then seized a pencil and wrote with immense rapidity, "Dear Edward, I am glad you have called me. I have

long wanted to communicate with you. Doubt no more. Be assured there is a communication between the two worlds. William Trenchard." This he handed to me. The party present could not understand its object. I did. The *facts* were these. My cousin was a clergyman. I was then sceptical (as are most devotees of Physical Science) as to a life after death. We had repeated discussions upon the question, he having a firm faith in the immortality of the Soul. A few days before his death (of consumption) he wrote me a long letter, saying that he was nearing to his grave, and should soon solve the problem we had so often debated, and that if God would permit him to communicate with me, he would make known to me the truth.

This was an obvious reference to an incident of long ago, and then and long after it impressed me very strongly as being a message from the dead—as doubtless it will appear to many readers. But further investigation and a longer experience of the phenomena of Psychism have satisfied me that all the incidents reported above admit of satisfactory and scientific explanation by reference to the mental condition, of the existence of which I had then no knowledge—*mental sympathy and communion*—popularly termed "thought-reading." The Psychic had in his mind an echo of the impressions upon my mind, the impressions upon the minds of Miss M., of the widow, and of the seven other persons whose friends had been rightly described. He was *en rapport* with each of us in turn. The impressions communicated to his mind by our minds appeared to him by a well-known mental deception as objective realities. Necessarily I had in my mind the form of my friend, the fact of our controversy, and the promise contained in his dying epistle. I could not recall his name without recalling by association the likeness of him, and some of the strongly-marked incidents connected with him. My recollections were attended by motion of the brain fibres. The same motions were set up in the brain of the Psychic by the process described in a former page. The same motions of the brain fibres produced the same ideas—that is, the same mental conceptions—in his mind, and with him, as so often with ourselves, mental impressions seemed

objective realities. This, it may be said, is conceivable, but how with *names* of persons and places? But a name cannot be placed upon the memory, nor recalled, without some brain action, and this particular brain action is as easily excited by sympathy as are other brain actions; and if the brain action of two persons be identical, so certainly will be the mental impressions conveyed to the Conscious Self.

Apply this simple solution to the phenomena of Psychism generally, and it will be found to account rationally for the great majority of them. The next incident proved that it was not merely a happy "guess."

I had written the name of "Rosalinda Butler" on one of the slips. Some time after the incident noted above, as it came to my turn to drop the pellets, the usual blows indicated that the one just fallen was to be marked. As I did this, the Psychic said to me; "I see by your side a young lady, fair, with long ringlets, about seventeen, her name is Rosalinda Butler." After a pause he added, "Another girl is by her side. They seem to be sisters. She nods assent. She shows me her name. Dorinda Butler. Are they related to you? 'Tis very odd. They are the same age. Were they twins? They shake their heads. Have you summoned them?" The pellet I dropped upon the table was opened and was that upon which I had written "Rosalinda Butler." The facts were, that I was much attached to Rosalinda, who was a cousin of my wife and died at the age of seventeen, almost suddenly, a few days after a visit to my house. She had a sister called Dorinda, who died at the same age, of the same malady, but of whom I had known little and who was not in my *thoughts* that evening, and but dimly in my *memory*.

A similar incident occurred with another of the party—Miss MULOCK, the author of "John Halifax." The Psychic described, as being seen by him at her side, an old lady with a queer cap and a curiously twisted stick. Miss M. informed us that it was an exact description of her mother, who wore such a head-dress and always carried a stick curled like a corkscrew. She was one of the names written by her.

These also were manifestly not objective, but subjective, impressions on the mind of the Psychic. The forms were pictured in *our* minds and so reflected upon *his* mind. I was not *thinking* of Dorinda; but the one sister was, by an association with the other sister, according to a

well-known law of mental action, actually present in my mind, although not consciously. Another proof of this is, that if the name of a living person be written, the description is often given with equal accuracy, showing that it is the *mental* picture and *not* the real person, or spirit of the person, which the Psychic has in his mind.

Experiment XI.

February 4, 1874.—Experimental sitting with Mr. Williams, Psychic, in the dining room at the residence of Mr. Crookes, F.R.S. The Psychic came alone in a cab, wearing ordinary evening dress. Confederacy impossible, no person being present but Mr. Crookes and myself. Personal action by the Psychic impossible, for we sat on either side of him, Mr. Crookes holding one hand, his foot upon the Psychic's foot, and I doing the like on the other side. Both of us assert positively that our hold upon him was never relaxed for a moment during the presentation of the phenomena. In this position, precluding the possibility of confederacy, mechanism, or use of hand or foot by the Psychic, or moving an inch from his seat, the following phenomena occurred.

An arm chair and a heavy oak dining-room chair were brought from the other side of the room, a distance of seven feet from us, and placed *upon* the table at which we were seated. A large china jug, nearly two feet high, and weighty, was brought from the sideboard and placed before us. A heavy musical box was wound up, lifted from the table, and carried round the room, playing the whole time. A handbell was repeatedly taken from the table and rung violently at each corner of the room and up at the ceiling. Asked that it might be brought nearer to me, it was immediately brought from a distant corner of the room, then circled round my head for several minutes, ringing furiously, until I was almost deafened by the noise and begged that it would cease the din; a request refused for some time. My watch was taken from my pocket, wound up, and returned to me. Many lights, like small shooting stars, or tiny rockets, continually descended from the ceiling to the table, and ascended from the table to the ceiling. All the customary sounds and motions attended this experiment, with other phenomena similar to those already reported.

The value of this experiment consists, not so much in novelty of phenomena presented, for all of them have been repeatedly witnessed, but in the exceptional excellence of the conditions under which they appeared.

Collusion, confederacy, mechanism, were *impossible*, nor could it have been conjuring, for no conjuror can perform any trick when his hands are held and in the absence of a confederate. Mr. CROOKES and myself had in our manual grasp, and under our entire control the only human body in the room, and therefore we possessed the most absolute security that nothing that was done could have been done by that body. The door was locked and sealed. We were alone with him for an hour. Conclusive proof that it was not an illusion is supplied by this, that after the experiment had ended, the chairs and jug were upon the table and the furniture of the room displaced. Unless, as the poet sings,

> The world is all a fleeting show,
> For man's delusion given,

the recorded incidents were *realities*, whatever the cause to which they may be assigned. The senses of one of the greatest of our Scientific Experimentalists were not likely to be so deceived. I am sure I was in the full possession of my own senses. We were not mere curiosity-mongers, seeking for excitement, but sober and calm inquirers into the laws of nature and the truths of Science. We were but endeavouring, without prejudice or prepossession, to ascertain, for the sake of Science alone, if the alleged force actually existed and if the asserted phenomena were realities or only illusions or impostures. What conclusion could we, as men of common sense, as practical and experienced men, draw from the phenomena described? As honest and truthful men, what verdict could we pronounce upon *such* evidence? What would the Reader, if not a fool, have concluded in his own mind,—and, if not a coward, have avowed,—had *he* witnessed what we witnessed under the same satisfactory conditions?

The most remarkable of the experiments at which I assisted is, perhaps, the following. The phenomena there presented are certainly inexplicable by any theory

hitherto broached; the suggestion of illusion is simply absurd, and that of imposture impossible. It may be taken as certain, that there was no illusion on the part of the practical experimental observers by whom the experiment was tried. It is certain that the incidents narrated actually occurred. They were vouched by all present. *How* they were produced is another question; but none of the distinguished Scientists who witnessed them doubted the intelligence of their senses, and although many conjectures as to the possibility of this or that means of performance were afterwards discussed, the *facts* were not disputed. All of us saw and heard as here reported.

Experiment XII.

It should be premised, that the experiment was conducted at the private residence of Mr. Crookes, F.R.S., purposely to test the alleged psychic power of Mrs. Fay. With this object the Scientists present had devised a test which, in the judgment of all of them, would instantly detect the very slightest attempt at trickery. I am not sufficiently acquainted with magnetic instruments to be enabled minutely to describe the one there employed; but it worked thus. Two handles, about 24in. apart, separated the two poles of the coil. Touching or removing the hands from these handles performed what Professor Tyndall calls "make" and "break." A conductor from the machine indicated the "making" or "breaking" of the magnetic current by a small light. As long as the current was maintained by holding the handles at the poles, the light remained at rest; but if either hand was removed, the "break" in the magnetic current was instantly betrayed by the quivering and darting way of the light. The perfection of this instrument as a detector of any removal, however slight, of either hand of the person holding the handles, was vouched for, after personal trial and careful examination, by all the eminent Scientists present. They were agreed that by no means known to Science, as the machine was set, could the Psychic quit it for an instant without detection.

It was designed for the purpose of enabling the experimentalists in the one room to be assured that the Psychic did not move in the other room, entirely obviating the use of ropes and other mechanical binding, said to be inefficient, inasmuch as skill and practice are supposed to enable any person to escape from any knots however ingeniously complicated—a feat, by the bye,

never yet performed by prisoners, who are invariably incompetent to secure their freedom by the means said to be so easily discovered and resorted to by Psychics. As the conditions of the phenomena were stated to be that the Psychic should be in a darkened room or "cabinet," the place chosen for the experiment was Mr. CROOKES's library, which opens by folding doors into his laboratory. It was arranged that a curtain should be drawn between the two rooms; that the Psychic should sit in the library and we in the laboratory, where was brought the conductor and its tell-tale light, to play the part of detective in full view of the entire party. The mechanism was out of reach and the Psychic could touch no part of it but the handles. No information was given to the Psychic as to the mechanism that had been devised, nor of the nature nor uses of the instrument; nor, indeed, what test would be employed. Even if she had been told its action, it would have been at least as unintelligible to her as it was to myself, who had some knowledge of scientific apparatus, this one being quite a recent invention. It was designed to work thus. The Psychic, seated in a chair, was to hold the two handles connected with the opposite poles of the coil, and so "make" and maintain the magnetic current. If she released her hold for a moment, the light before our eyes in the other room would as instantly betray the movement by flashing from its place. As none of the asserted phenomena, if produced by a trick, could occur without the use of her hands, she must remove them from the handles, and then the mechanism (which could not be "biologised" or be subject to "illusion") would at once betray the fraud to all of us.

To be assured that it was perfect for its purpose, it was tried by each of us in turn grasping the handles. With each in turn, so long as he held on, the light was seen by the others in the adjoining room to be steady. When the hand moved, the light told the tale plainly and instantly to those in the lighted laboratory.

The mechanism was pronounced by all the Scientists to be perfect for its purpose; and discomfiture of the Psychic was anticipated.

The persons present were Mr. CROOKES, F.R.S., Mr. GALTON, F.R.S., Mr. HUGGINS, F.R.S., Mr. IONIDES, and myself.

It is necessary now briefly to describe the library in which the Psychic was to be placed. It is a small but lofty room, fitted with bookshelves from floor to ceiling, and the shelves are filled with books arranged in no other order than that of size. The upper shelves, where the smaller books are placed, are far out of reach, without mounting a library ladder, which is kept in the room for such use. The books are many hundreds in number. A library table and a writing cabinet with locked drawers occupy

the floor. On the chimney-piece are a clock and a variety of scientific instruments.

The entire party examined this room with care. The ladder was placed erect against the wall. The clock was ticking on the mantel-shelf. The bookshelves were in due order. Only some newspapers and magazines lay on the table.

The Psychic was conducted from the drawing room to the library by one of our party. She was at once seated before the machine described and made to grasp the handles. The light was declared to be steady in its place, showing that the current was "made" and complete. The Psychic was then told, for the first time, that if she moved either hand from the handles, however slightly, it would be detected instantly by us in the next room; but by what means she was purposely not told. Some of us went into the laboratory to see if it answered its object, and on the withdrawal of her hands the light went. On her grasping the metals again, the light was restored to its place. She had been introduced, and at once seated, without an opportunity to inspect the room, the light of the laboratory sufficing when the curtain was open. All being pronounced by the Experts to be arranged to their perfect satisfaction, the curtain was dropped, and the Psychic was left in the library alone, in complete darkness, seated at the machine, holding the handles, the door being locked and sealed. We seated ourselves in the laboratory before the curtain, our eyes fixed upon the light that beamed steadily before us.

With this preliminary description, essential to understanding the conditions under which the phenomena were presented, I proceed to transcribe from the notes taken what occurred.

In three minutes a hand was thrust through the curtain, and a voice (precisely like that of Mrs. Fay) said, "I want to give you something." One of us went to the curtain and received from behind it the clock that had been upon the chimney-piece. Then some newspapers were brought from the table and thrown out into the laboratory. A noise was heard as of the ladder being moved. Presently the voice said, "Come here, Traveller, I have a present for you." For a moment we all forgot who "the traveller" was; but, on the request being repeated, Mr. GALTON went to the curtain and a volume he had published some years before was presented to him. Mr. Huggins was then called. "Here's something for you, astronomer," and in his hand was placed his book on "Spectrum Analysis." Presently the voice said, "Serjeant, I have got something for you; come here." I went up to the curtain, and received the first volume of this treatise.

In doing this, I separated the curtains about a foot, and there full in view stood the Psychic, or an exact duplication of her—the same satin dress, with the same lace, the same long curling hair. As the book was given to me, the hand touched mine; it was

warm and moist and fleshy, and the same rings were upon the fingers. Looking, I saw another form, like that we had left upon the seat, grasping the handles, still there, still in the same posture, but too much in shadow to enable me to note the dress. On my retirement, carrying my book, Mr. IONIDES said, "Have you got nothing for me?" "Here" said the voice, "is something you will like better than a book," and into his hand was given a box of cigarettes. During all of these occurrences the detective light burned steadily, proving beyond question that the magnetic current had never for an instant been interrupted. After this had continued about half an hour there was moaning; the tell-tale light flashed away, showing that the current had been "broken." Instantly the curtain was drawn and the Psychic was found lying back in her chair, in an unconscious state, her hands fallen by her side. Some time elapsed before she could be restored.

We now examined the room. The ladder, which we had left standing against the wall, was lying on the floor and some other things that had been upon the mantel-shelf when we left the room were placed upon the table.

Whence did the books come? All from the *upper* shelves, which could not be reached without mounting the ladder. But this was the least perplexing part of the phenomenon. The room had been left in such complete darkness that it would have been impossible for *any* eye to read the titles of the books upon the backs of them. But even with the help of a candle it would have taken a long time to have found any one of these three volumes among the hundreds upon those shelves. The title of mine was printed upon the back; but that of Mr. HUGGINS was *upon the cover*, and it would have puzzled himself to discover his book amongst the rest. As for Mr. GALTON'S work, Mr. CROOKES stated that he had forgotten that he possessed it. He added that he could not have found those three books in half an hour, with light to aid him. How, then, were they found by the Psychic in the dark, in the course of ten minutes at the most, and when found taken from the shelves? But whence the box of cigarettes presented to Mr. Ionides? There had been none about the room. Mr. Crookes said: "I have a drawer full of them in my cabinet, but it is locked." The drawer was then unlocked. It had been filled with packets of cigarettes. There was the blank in a parcel left by one box that had been removed. Examined, it proved to be that given to Mr. IONIDES. How that box was taken out of a locked drawer is as inexplicable as how the three books could be selected in the dark, by a stranger, from the upper shelf of a large library.

These phenomena occurred under conditions that appear to preclude the possibility of imposture, with a

scientific test, pronounced by the experts present to be conclusive that, during the whole time of their exhibition, the magnetic current had *not* been interrupted. If it was herself we had seen and talked with at the curtain, and by whom the clock and books were handed, how was the current maintained? The handles were twenty-four inches apart. What conductor could she have used to supply her place there? But even if she possessed one, she must have employed her hands to use it, and any motion by them would have been betrayed instantly. This, however, is only the preliminary difficulty. Granted the possibility of removal from her seat undetected, how did she, in the dark, find the books and present to each the right one? An explanation might be found in the world-wide theory of "a double"—accepted in Scotland, recognised in Germany, and supported by some curious evidence among ourselves. But to admit such an hypothesis is only to encounter one difficulty with another. Whatever the agent, it certainly was *not* a Spirit of the dead. It was undoubtedly the *living* Psychic (or a duplicate of her) we saw and spoke with. If a Spirit, it was the Spirit of the *Quick* and not of the Dead. But one query remains. Did some other *non*-human being maintain the needful contact while she moved about? Certain it is that *no* human being did so.

The following experiment was tried at my own residence, Mr. Home being the Psychic :—

Experiment XIII.

We were lying on the grass of the lawn, and three feet from us was the gravel walk. Our discourse was of the phenomena and their causes. While we were debating them, distinct and loud rappings were made upon the walk behind us and beyond our reach. At the supper-table, when only my wife, Mr. Home, and myself were present, very loud rappings were made repeatedly upon a wooden cheesestand, which stood in the centre of the table, three feet at least from Mr. Home. As Mr. Home and myself were entering the drawing-room, lighted with gas, a very heavy chair that was standing by the fire, thirteen feet from us, was flung from its place through the whole length of the room,

and fell at our feet. No other person was in the room, and we were crossing the threshold of the door. Mr. Home seated himself at the piano, and commenced to play and sing. As I was sitting by his side listening, it occurred to me to try if the accordion would play in my own hand as in his. I took, from the box in which it had been sent, an instrument I had that day purchased at the Soho bazaar, and re-seated myself, holding it by the end *opposite to the keys*, and suspended thus between myself and Mr. Home as he continued to play the piano. Presently I felt the accordion lifted up and down, and then some notes were sounded, and then it joined, though but imperfectly, in the tune he was playing. This was in the light, and, therefore, I am sure it was not, and indeed could not be, touched by him, for he was playing the piano with *both* hands. I then requested him to hold the accordion with his left hand (I was sitting on his left), and play an air on the piano with his right hand. He did so, and immediately the accordion, held by him with the keys under, played beautifully an accompaniment to the piano for at least a quarter of an hour three or four tunes. The accordion was then passed to my hand, and, while I held it by *the end* opposite to the keys, played a tune perfectly. The force of the upward pressure of the bellows was so great that it required all the strength of my arm to resist it.

It is important to note that all of the experiments reported were tried where pre-arrangement of machinery was *impossible*. It would require a considerable quantity of mechanism first to throw two very heavy men flat upon a table, and then lift one of them, over the heads of the persons assembled, to the end of a large room, and to such a height as to knock down a picture in passing. But these phenomena are, in fact, simply instances of Psychic Force exhibited with uncommon power. From this and many other experiments it would appear that the Force not only flows from the Psychic and permeating external substances produces motion in them, but sometimes it seems to be pent up in him or it reacts upon himself and in such case induces upon his person precisely the same effect as when it permeates other solid bodies, throwing, shaking and occasionally lifting him. It is never seen to operate upon the person of the Psychic and upon a foreign body at the same moment. But, whatever the causes, there is obviously nothing in the

phenomenon that affords the slightest evidence of the agency of Spirits of the dead. On the contrary, the exhibited action is altogether *in*consistent with any possible conception of disembodied Souls or of their doings. (*a*)

(*a*) It is but simple justice to Mr. D. D. Home to state the obligation under which I feel to him for the generous and cordial manner in which he placed at my disposal, for the pursuance of the psychological investigations in which I had been so long engaged, the rare and remarkable Psychic power with which he is gifted. He has freely permitted to myself and my scientific coadjutors the application of every test proposed by us, and the trial of every experiment desired, under any conditions suggested for our own satisfaction, and thus enabled us to satisfy our own minds and my own experience in the sifting of evidence, as to the facts and characteristics of the various phenomena. This was the more commendable, for being himself firmly convinced that all that occurs in his presence is through the agency of Spirits of the dead, and knowing that I held a different opinion and was looking for their causes in the human organisation itself, I was acting in opposition to his own theory. Nevertheless he assisted our researches with hearty good will—still to the last, however, expressing a hope and belief that our investigations would lead us to the same conclusion as had been arrived at by himself. To this end Mr. Home gave me opportunities for examination under circumstances most favourable for observation, and under conditions that made imposture impossible. Spending some days with me at my house in the country, I enjoyed the advantage of being with him alone for many hours, in my own rooms and in my garden, where mechanical contrivance was impracticable, and I witnessed there precisely the same phenomena as I had seen in the *salons* with a numerous circle, in which mechanism and confederates, however improbable, were not impossible. In my own rooms in the country, with none present but Mr. Home and myself, such explanations of the phenomena were impracticable. Nor were they fancies and imaginations, for the furniture had changed its position, the music had been heard by others, and the sounds sometimes echoed through the house. I may add that it is a creditable characteristic of Mr. Home that he invariably *invites* tests and *courts* examination. The phenomena with him are produced in the full light of day or of gas, and he refuses to hold a dark sitting, save to oblige some intimate friend who may desire to witness the more extraordinary phenomena that are then exhibited.

It is well known that the late Lord Brougham accompanied

Does not this Experiment admit of solution by re-

Sir David Brewster to a private experimental sitting with Mr. Home. It was reported at the time that both of these distinguished men had been perfectly satisfied with the reality of the phenomena they had witnessed. A few months afterwards, however, Sir David Brewster, being ridiculed by some of his friends who had *not* seen for believing what he *had* seen, and wanting the courage of his opinions, declared that what he had witnessed was a trick. Recently, however, in a memoir of Sir David, published by his sister, a letter appears, written at that very time, in which he expresses privately his conviction of the truth of that which he was publicly proclaiming to be a fraud. Moral cowardice is, unhappily, too often found allied with scientific eminence for such a revelation of it to create surprise. It is indeed the weak side of the English character.

In conversation with Lord Brougham, I asked him as to what he had witnessed with Mr. Home on that occasion, and his opinion of it. At that time I had never seen Mr. Home nor any of the phenomena of Psychism; for I had accepted the newspaper assertions that it was mere conjuring. Although making Psychology a study, I had deemed these alleged phenomena to be unworthy of serious investigation. I was startled by the account he gave me. "I went," he said, "with Brewster, to Home, who behaved like a gentleman. He invited examination: he certainly brought nothing with him. It was a room of our choice, so there was no prepared mechanism; it was as light as this room" (his library in Grafton-street). "Nobody was near us; the table rose from the floor and jumped about; a bell passed behind us, ringing; and was put into my hand first, and then into Brewster's; an accordion played tunes, held keys downwards; there were rappings on the door and the cabinets far from us; chairs came to us untouched from the other side of the room. Beyond doubt this was done, but I don't know how it was done. We were both perfectly satisfied at the time it was no trick, and that some unknown power was in action."—"What said Brewster to it?" I asked.—"After walking on in silence some way, I said, 'Well, Brewster, what do you think of it?' and he said only, 'There are more things in heaven and earth, Horatio, than are dreamt of in our philosophy.'"—"He changed his opinion afterwards," I said.—"But he never said so to me."—"Did you?"—"Never; I was satisfied then, and am convinced now, there was no trick whatever—it was genuine."

In answer to my inquiry, why did he not pursue the investigation, he said that he was then deeply immersed in experiments in optical science, and had not leisure to enter upon so vast a field as the phenomena he had witnessed with Mr. Home appeared to open.

ference to some psychic (or Soul) power of the Psychic in the state of trance, so often witnessed, when the links of the chain that in the normal condition binds the Self (or Soul) to the body, are loosened and one can act to a certain extent without the other? May it not be that the material mechanism of the Psychic was doing what we witnessed with Mrs. Fay, under the direction of the non-molecular part of the mechanism, which was maintaining the magnetic current by some power unknown to us?

This, of course, is merely a suggestion thrown out for thought.

EXPERIMENT XIV.

At the residence of Mr. WALTER CROOKES. The Experimentalists present were Mr. CROOKES, F.R.S., Mr. F. GALTON, F.R.S., Mr. WALTER CROOKES, and myself. Mr. D. D. HOME and two ladies completed the party. The place was a double drawing-room, separated by a sideboard and a curtain. The Psychic was taken by us into the smaller room, and being seated in a chair, his wrists were tightly bound with copper wire, and fastened with wire to the back of the chair. His feet were then bound by the ankles in the same manner to the legs and rungs of the chair, and the chair itself was fastened by wire to the grate. The wires were then soldered at the fastenings with melted solder procured by us, and then he was pronounced by the Scientists who had secured him to be absolutely immovable by any human power without cutting all the wires. His person thus bound was then enveloped in a dressing-gown, the sleeves of which were sewn together, inclosing him as in a sack. Thus was he placed wired to the fire grate at the distance of eight feet from the curtain dividing the rooms. He had no friend, nor confederate. He came to the house alone, in a cab, wearing the ordinary evening dress. Having secured the door with lock and seals, and also sealed the window, to be sure that no aid could come from without, leaving him in total darkness, we went into the front room, which was fully lighted with gas, and seated ourselves before the curtain.

In *four minutes* a bell that had been previously placed upon the table far from the imprisoned Psychic was rung violently. Then a footstool, and then a chair, and then successively the greater portion of the movable furniture of the room in which the Psychic sat, were passed through the curtain into our room. Presently the curtain was partially drawn and exhibited a man, dressed in the fashion of a sailor, but whose features resembled exactly those of the Psychic, and whom

we all were satisfied *was* the Psychic. He stood there, leaning over the sideboard, talking to us for more than half an hour, addressing each of us by name and freely answering our questions. He was brisk at repartee. The tone of his voice and the manner of speaking were the same as all must have noticed in Somnambules, who act with such abnormal ability whatever character is suggested to them. One instance will suffice. I said, "Are you substantial, or only a shape?" "I am as solid as you are," was the answer. "Have you blood, and spittle and sweat?" "Yes," he said, "will you trust your finger in my mouth?" "Certainly." "Put it in, then." He opened his jaws and I fearlessly thrust in my finger. The tongue was warm and moist; the teeth were solid and sharp, for he gave me a bite that made me cry out with pain. Having held me thus for nearly a minute, he let me go, and with a loud laugh, said, "Do you call that Psychic Force, Serjeant?" I was compelled to acknowledge the presence of a powerful physical force. Upon the table in the room where we sat was a large iron ring, manufactured for us for experimental purposes. He asked me if I should like to have the ring put upon my arm. None of us had witnessed this feat. I readily assented. "Give me your hand, then." He took my right hand. "Now, hand me the ring." I gave it to him with my left hand. He pressed it with some force against my arm, and in an instant it was hanging upon it. *How* it was done I cannot even conjecture. Our hands had not parted, at least *consciously* to myself. The ring was pressed against my arm at the upper part near the shoulder. It was a momentary act, done with a touch. It was our own ring of solid iron half an inch in diameter. I carried it upon my arm back to the table, and we examined it to be sure that it was the same ring. We now went into the other room. The Psychic was as we had left him, only in a state of unconsciousness. The wires were upon all his limbs uncut, the solder perfect, the chair bound to the grate, the dressing-gown upon him. The door was locked, and the seals on door and window unbroken.

We had no doubt, and I have none, that at this experiment we saw and conversed with the Psychic in person. How he was removed from the wires soldered round his ankles and arms to the chair and the grate, and still more how, if he could get out he could get into them again, is a problem for which no reasonable solution has suggested itself. The fact is certain. The wires were afterwards *cut* from him with some difficulty, as the only means of release, and taken away by Mr. GALTON, who had bound and soldered them upon him, and who perhaps still

possesses them. We had no doubt that the Psychic got out of them and into them somehow; but the question of Psychological interest is, by what process this was performed? That it is a psychic and not a supernatural action is the reasonable conclusion of Science. The entire series of the phenomena of Psychism proves at least this—that we are only upon the threshold of our knowledge of psychic laws; that they differ altogether from *physical* laws; and that we must be content to retrace our steps and renew our researches into the *Science of Soul* from its very foundations.

Experiment XV.

In this case the Psychic repudiated Spiritualism. He frankly admitted that he could discover no trace whatever of the presence of Spirits of the dead. "You bind me. I fall into a trance. I become unconscious. I wake and I am free." The experiment was conducted under very simple conditions. A light frame of wood over which canvas was stretched was placed upon the floor of my sitting-room. It was 5ft. in length, and just deep enough to receive a chair. A curtain was hung over it in front. He had been tied with ropes by our most skilled knot-tyers, but was released in three minutes. This, however, was looked upon as a conjuror's trick and therefore we resolved to apply to him a crucial test.

I borrowed from the prison at Clerkenwell, by favour, two pairs of their most secure handcuffs. They were of special make. Each pair was so constructed that it could neither be locked nor unlocked, closed nor opened, by any key but its own. Both pairs of these "darbies" (as they are called by the class for whose wrists they are designed) were fastened by ourselves upon the wrists of the Psychic, securely locked and the keys placed in my pocket. The curtain was drawn, and in one minute and a half the handcuffs were lying on the floor *unlocked and open*. The curtain was again drawn, and in another minute both handcuffs were restored to the wrists *and locked*. An explanation of this marvel was at once suggested—he had small hands and they were squeezed into and out of the handcuffs. The fact that he was not only free from the irons, but that *they were unlocked and opened, and then closed and locked* (a process only possible by using the two keys which I had in my pocket), was not taken into consideration. To meet this objection, another more conclusive test was suggested and at once we proceeded to try it. We locked both the handcuffs to the rung of the chair on which the Psychic sat. In two minutes they were unlocked and removed

from the chair and locked upon his wrists. Then the experiment was reversed, and again in one minute and three quarters the locked handcuffs were unlocked, removed from the wrists, and locked upon the rung of the chair. We made trial of the time required by ourselves to unlock the handcuffs, take them from the chair to which they were fastened, place them upon the wrists and relock them. With our utmost speed we could not accomplish this process in less than three minutes. It was done by the Psychic Force (if such it be) in one minute and a half. With the irons on the wrists we found that we could not apply the key to the lock when put into our hands. On another occasion, an officer from the Bow-street Police Office was employed for the purpose. He brought *three* pairs of handcuffs from the office, which himself placed upon the arms of the Psychic, warranting that no man in England could escape from them. To his amazement, in three minutes they were removed from the wrists and lying unlocked and open upon the floor. Questioned as to the means by which it was effected, the Psychic said he was as ignorant as we were. He was certain that it was not Spiritualism. Asked what he called it? he said, "You may call it Everettism, if you please" (his name was Everett). Afterwards he approved of the term "Psychism" as appropriate. At the close of the experiment, of which there were several competent witnesses, scientific and general, the keys were in my pocket where I had kept them throughout the trial of it.

I can suggest no reasonable explanation of this remarkable experiment. Under the influence of Psychic Force, organic matter is undoubtedly subject to extraordinary compression and expansion, as very little experience of the phenomena will satisfy the observer. We should have ascribed the freeing of the hands from and their restoration to the handcuffs to this, but for the further inexplicable fact, that the handcuffs were also at the same time unlocked and re-locked, and only by actually unlocking and opening them could they be removed from the rung of the chair. But further observation and experiment, a wider range of facts and phenomena, will doubtless supply a solution of this problem that will be found to be in strict accordance with some of the many laws of Psychological Science yet remaining to be explored.

I cannot conclude these reports of the result of my personal experiments without citing a case of Natural

Somnambulism lately published to the world, on the highest authority, since the printing of the chapter on that subject in the earlier pages of this volume. This remarkable case presents every phase of that abnormal condition of the Mechanism of Man in so distinct and definite a form, and under conditions so determinate in themselves, and prolonged through so many years, as to permit of the most exhaustive examination and the most accurate observation of the various phenomena exhibited, and conclusive proof of the facts. The subject of this extraordinary affection is a lady by connection and education. The scene of it is her own family circle. Publicity has been strenuously shunned by her friends and by herself. Imposture on her part could not possibly have been sustained for twelve long years, even if there had been a motive for it. But there was none. She is in affluent circumstances, is much loved and highly respected. If a desire for notoriety be a suggested motive, the answer is that she has shrunk from it. Her wonderful case had been whispered about among the Profession, but no particulars of it had been permitted to be given to the world by her medical and other attendants until now that an accident has made them known.

The narrative is extracted from the *New York Sun*, where it was published only after the most cautious investigation. But I have received from a correspondent in that city the most positive assurance that the report is strictly true, himself having witnessed many of the phenomena. Some of my friends here have received similar assurances from other friends in New York, so that the narrative may be accepted as an authentic report of a case which, in all its features, sustains by overwhelming evidence the contention of this treatise, that the Mechanism of Man is constructed of Soul as well as body, or rather, that Man is an embodied Soul, and that the entire series of phenomena from *Dream* to *Psychism*, are the results of abnormal conditions of the relationship between the non-molecular Soul and the molecular body.

The report, which fills two closely printed pages of the

newspaper, is necessarily abbreviated here. But the more important parts of it are preserved intact.

In Downing-street, Brooklyn, has lain for thirteen years Miss Mary J. Fancher, much of the time in a trance-like condition, with feeble heart pulsations, sluggish, and almost imperceptible respiration, and the chill of death upon her flesh. At times she has been transformed into a cheerful, vivacious, intelligent, entertaining young woman, and then she has relapsed into speechlessness, blindness, deafness, and entire paralysis of the senses. She has developed most astonishing powers, resembling second sight or clairvoyance, reading with ease the contents of sealed letters, describing articles in hidden packages, perusing books while absolutely blind. Sometimes her powers are voluntary, at other times they are unconsciously exercised. So little nourishment has she taken that it may be said she lives without food. She is surrounded by persons of social standing and refinement, and has always been exceedingly sensitive to any public mention or knowledge of her condition. . . . . Clergymen, physicians, men of letters and of intelligence have visited her. Among many who have taken a special interest in her are the Rev. Dr. Joseph T. Duryea, pastor of the Classon Avenue Presbyterian Church; the Rev. Dr. Henry J. Van Dyck, pastor of the Clinton-street Presbyterian Church; Professor Charles E. West, Principal of the Brooklyn Heights Seminary; George W. Benson, Henry M. Parkhurst, the astronomer; James B. Smith, the well-known architect; the Rev. Mr. Moore, former pastor of the Washington Avenue (Brooklyn) Baptist Church, but now of Geneva, N. Y.; the Rev. Dr. Prime, editor of the *New York Observer*; Dr. R. Fleet Speir, of 162, Montague-street; Dr. Robert Ormiston, of 74, Hanson-place; Dr. Mitchell, of 129, Montague-street; Dr. Kissam, of 100, Joralemon-street; and Dr. Crane, of 163, Clinton-street. Of these gentlemen, Messrs. Speir, West, and Parkhurst have made voluminous memoranda of Miss Fancher's physical and mental changes and conditions. Miss Fancher herself has written at great length descriptions of her feelings and sensations.

At the age of eighteen, she was thrown from her horse and broke three ribs. Soon after her recovery from this accident, she was alighting from a car, when her dress caught in the step, the horse moved on and she was dragged a considerable distance upon the pavement. A permanent injury to the spine and frightful lacerations of the head and face were the consequence. Violent convulsions ensued. She was carried to her aunt's, Mrs.

Crosby, in Downing-street, New York, and placed in the bed from which she has not since been moved. This happened thirteen years ago, in the beginning of the year 1865. The accident was followed by a series of remarkable physical effects. At times there was violent nervous excitement, and at other times total paralysis. She lost in succession the senses of sight and hearing, and the power of speech. Violent spasms preceded a state of trance, from which no efforts of her physicians could waken her. This continued for twenty days of apparent death. Then her senses were restored one by one in the order in which they had departed. Then the like series of affections occurred at intervals of ten days. Her jaws were locked. Her limbs were contorted by the spasms and so remained. For two months no food whatever could be administered to her. Afterwards a few drops of lemonade and some beef tea were poured into her throat at long intervals. Her physicians report that, during the thirteen years of her malady, she has eaten altogether "not so much food *in the aggregate* as an ordinary healthful girl of her age would eat in forty-eight hours."

Three months and a half after the accident she went into a rigid trance for twenty-one hours, and then passed into a relaxed trance that lasted for three days. Her throat became paralysed, and she could neither swallow nor utter a sound. Her right arm doubled up back of her head, and became fixed there with the rigidity of death. A year later this condition was followed by absolute rigidity of body, with the exception of the left arm and hand, which she was able to use. This latter condition lasted for nine years, in all of which time she was continually drifting into and out of trances. She continued to be blind, the pupils of the eyes being rolled upwards, and the whites only visible when the lids were parted for examination. Very tightly indeed were the lids sealed, and with difficulty were they opened. She had the power of speech, however, almost all the time, although it left her at intervals.

Three years ago the rigidity of her body relaxed, and sight and hearing were restored. Memory of everything that had happened in the nine years disappeared. She could not recognise friends whose acquaintance had been made in that period. Her thoughts went back to events that were happening when she sank into the

nine years' stupor, and she began to talk of them as though they had occurred an hour before. In all the nine years she had been in a semi-unconscious condition, possessed, however, at times of astonishing mental vigour and of mechanical ingenuity. She refused food when offered to her, saying it made her sick. Dr. Speir and Dr. Ormiston forced food into her stomach with the pump, and, after paralysis of the throat came on, tried to feed her through a silver tube inserted in the neck. Food sickened her, however, and, eventually, all efforts to induce her to take nourishment were abandoned. At long intervals she expressed a wish for the juice of some fruit or for a bit of candy, but she rejected solid matter, and for weeks and months, according to her own assertion and that of her attendants, she swallowed nothing. Her physical condition was constantly changing. One day she was without sense, except touch; the next she could hear, and taste, and talk. But her eyes did not open until at the end of the nine years.

At intervals during these nine years the body frequently became as cold as though in death, no warmth being detected except in the region of the heart. That organ kept up a slow, measured pulsation, except when she went into trances; then its beating was often imperceptible. Her head and shoulders retained their normal condition, but soon after each of these attacks her legs would be drawn up and contorted, her feet contracted. At the same time, to quote the language of her physicians, "her intestines shrivelled and wasted away, leaving little more than a coating of skin over the backbone in the cavity they had occupied. They became almost entirely inoperative, and for years were completely so." She was so sensitive to heat in the nine years' period of rigidity that fire was not lighted in her room, nor was the temperature raised in any manner. In midwinter her only covering was a single sheet, and the window was kept partly open. In all these years her right arm remained bent behind her head, and when relaxation returned at the end of that period, the member was not released from its tension, as was the rest of the body. The arm remains still in the same cramped position.

Such was her physical condition, as described by the eminent Physicians who attended her. Her *Psychological* condition, however, is that which most concerns us here. Emerging from her trance, she describes as having seen, while in that condition, persons and places far distant. She narrates in minute detail what her friends were doing in different parts of the City, and events that happened to persons many miles away. Although in bed and out of sight, she names the persons coming to the door long before their arrival. She reads

sealed letters when in the pockets of her visitors, closed books, and unopened newspapers. This trance condition is thus described:

It is in the condition of trance that Miss Fancher makes her most astonishing revelations. At these times she suddenly starts as though charged from an electric battery, and instantly becomes rigid in every joint and muscle. Her face takes on sometimes a most painful expression, at others one of the most positive pleasure; yet oftener it is as the face of one who is dead. To those unaccustomed to seeing her, the conviction that she is indeed dead is irresistible. A deathlike pallor creeps over the already pale face. Not the slightest movement is perceptible in any of her muscles. She ceases to breathe. Her body becomes cold. Her heart gives out no pulsations that are easily detected —although her physicians have not convinced themselves that it does not beat. The initiatory start oftentimes raises her up into a half-sitting, half-reclining position, in which she remains as immovable as though she were of marble. Everyone who has seen her in this condition speaks of the beauty and the pathos of the scene—the ashen complexion; the brown, fine, waving hair streaming towards her shoulders, yet not reaching them; the faultless features, neither wrinkled, nor drawn, nor wasted, and yet not rounded and ruddy as in her school-girl days; one hand and graceful arm transfixed in its position at the instant of attack, perhaps pointing upward, perhaps extended to receive a visitor's salutation, perhaps folded over her breast; the other arm bent behind her head as though she were resting upon it, the eyes closed.

The trance is her only rest. She never sleeps. Day and night are alike to her. She can see in the night quite as well as in the day. Here are presented the precise phenomena exhibited in the cases of Somnambulism and Hypnotism already reported:

Oftentimes, when worried over the absence of some loved one, she has said, "I must search for her," and has gone into the trance. On emerging therefrom, if asked whether her search was successful, she answers promptly if in the affirmative: "Yes, I saw her in —— street; she will soon be home," and very soon in walks the wanderer. Sometimes she is not successful in several attempts, but she ceases not until she is satisfied. At other times her vision wanders. It has gone to a summer seat on the Hudson, where were several of her friends, and she has afterwards been able to describe minutely the houses, the barns, the meadows and fences, the water in front of and the woodland

in the rear of the dwelling, and with a fidelity that is instantly recognised by those familiar with the region. When scientific men and physicians have produced some extraordinarily difficult tests, she has been obliged to wait until the trance condition came upon her; for it does not seem always to be voluntary. But if it is a simple question of reading an ordinary sealed letter, or announcing the arrival of a person at the street door, she easily solves the difficulty without recourse to the trance. As she rests continually upon her right side, her face is averted from the entrance to the room. Yet she oftentimes knows who enters, although unable to turn her head, and is quick to discern any peculiarity or change of dress. If a gentleman friend puts on a white necktie in early spring, after having worn a black one, she is quite likely to cry out, her face averted: "Good afternoon, Mr. ——! Where did you get your necktie?" It has been deemed necessary to darken her room, and the shades are tightly drawn; yet the darkness does not affect her vision. She is ever busy in the darkness reading, or at needle or wax work, or casting up the accounts of the family, for she keeps a record of every expenditure. She writes letters with astonishing rapidity, in a neat, legible hand, although it is certain she cannot see with normal sight; and, mindful of the interest that her condition may excite among scientific men, she has kept a complete record of her feelings, her sensations while in trance and out of it, her religious beliefs as strengthened or shaken by the revelatious of her peculiar state, and of everything that she thinks will interest her friends. This record she guards with care. She is willing that it may be given to the public after her death, but not until then.

Her fondness for dogs and cats, birds and squirrels has amounted almost to a passion, yet, strangely enough, her pets do not live long. Whether she draws the life from them has been an interesting study for some of the men of intelligence who have visited her.

Persons who have entered the room have found her apparently doing nothing, and have asked her why she was idle. "Oh, I am reading such and such a book."

"Well, where is it?"

"Under the bedclothes, here," and she produces it and talks of its contents.

Like other somnambules, while her sense of sight was sealed, her *mind* perceived external objects without the aid of the eyes.

While Miss Fancher's eyes were absolutely sightless, the eyelids being closed, and the eyeballs fixed as though in death, she was able with facility, and without seeming effort, to make marvels of fancy work. For her gentlemen friends she embroidered sus-

penders and worked slippers and watch pockets, and for companions of her girlhood she made needlework of all kinds, pincushions and wax flowers. Every stitch was in proper place, every shade of coloured thread and worsted was correctly drawn. Her handiwork was as near perfection as could be. Some of it was sent to fairs, where, its maker being unknown, it was pronounced superior to all others of its kind exhibited. Sometimes she worked from paper patterns purchased at a fancy store, sometimes from other fancy work, but oftener she originated her designs. It was impossible to deceive her in the quality or shade of the materials with which she worked, her rare power of so-called second sight enabling her to detect any flaw with greater accuracy than did the natural vision of her friends.

Yet more astonishing are her effects in waxwork. Without having taken a lesson, and without knowledge of botany, and, too, without pattern, she fashions in wax beautiful designs—windows filled with flowers, and vines, and butterflies, bouquets, crosses, and anchors. Once asked how she was able to do all this, she answered, "Oh, I see the leaves, and then make others like them."

All this waxwork making and embroidery, and needlework on canvas is made while one hand is rigidly held back of her head. With this hand she holds her work, and plies the needle with the other. Even though she had the sight of her eyes, it must be impossible for her to see the work in the position in which she is compelled to hold it. She works or reads by night, no light whatever being in the room, with the same facility as by day, and not for an instant hesitates to select the proper shade and size of worsted from the score of colours and sizes that are within her reach. She works monograms of her own fancy into the silk handkerchiefs of her gentlemen friends, and puts butterflies, and leaves, and birds upon them with rare taste and skill. One of the most beautiful of her waxwork productions, an exquisite and delicate bower of roses and creepers, adorns the parlour of Professor West's Brooklyn Heights Seminary, 126, Montague-street. She has neglected none of her friends; all have some little gem of her own fashioning.

It is a fact of some interest to Psychology that in her clairvoyant state she cannot follow two persons who separate and go in different directions. She describes both while together, and what they do, and their parting; but she can note the further actions of one of them only.

Dr. DURYEA tried her as to some doings of his own at a distant place. She described the dress he wore (an

uncommon one), and a dog barking at the steps, and the minute particulars of a funeral at which he was present. This, however, might be "mental communion," *i.e.*, "Thought Reading." Dr. DUEYEA broaches a theory as to this somewhat like that suggested here. He says:

"Being convinced, then, that Miss Fancher practises no deception, how are her powers to be explained?"

"It is impossible to satisfactorily account for them. That she has most astonishing powers of seeing friends in different parts of the country and city, and of doing other almost incomprehensible things, I have not a doubt. The child cannot deceive; she is beyond that; she does not wish to practise imposition. But her physical changes have in some measure released her mind from the imprisonment of the body, and she does with it what other mortals cannot do with theirs. Here she is deprived first of hearing, then of sight, then of speech, her throat paralyzed —sealed up so that nothing could be passed through it—in such a state that you might as well expect her to swallow a ramrod as a piece of bread: her abdominal organs in the same condition. The mind or spirit was absolutely confined. May it not with a mighty effort have burst away, and once partly freed from the confines of the physical body, have been governed by other and higher laws than those that control it while under the bondage of the body? That men's minds are largely subject to their physical condition is well understood. Occasionally, as in this instance, under peculiar conditions, we find this power, which we call second-sight or clairvoyance. What it is we have not yet ascertained, for the reason, possibly, that so few of the cases have been scientifically investigated; no critical comparisons of one case with another have been made to discover the analogies. I think such instances should have the most wide-spread publicity of descriptions of their mental and physical phenomena. The more we know of them the sooner we shall solve their mysteries."

"Miss Fancher sees the images of those who have gone before her to the spirit world."

"Miss Fancher unquestionably thinks that she sees them and communes with them. Yet this is not so incomprehensible as some of her other acts. She has known their faces upon earth. With increased mental powers naturally comes increased imagination. I can readily understand how little increase of imagining it would require for you or for me to think in our dreams, or out of them for that matter, that we are talking with those who are dead. Men imagine they are sick while they are well, and imagine they are well while they are sick; imagine almost every conceivable thing; nevertheless, they always have had something from which

to work. Miss Fancher may think she is in heaven, yet she has read enough in her Bible to give her a basis for making a picture of heaven in her mind. While I do not say that she has not seen so-called spiritual sights, I can see an explanation of why she thinks she has seen them. It is her power of sight of things upon earth that are concealed from the sight of others that puzzles me. Tests are made of the powers in which she has absolutely no foundation from which to work. How does she arrange and decipher the contents of a letter that has been cut into pieces and sealed within an envelope—a letter, the contents of which those who gave it to her had not the slightest notion. Let us settle that before we get into the merits of what it is possible may be produced by a heightened imagination; it is the more astonishing performance."

Mr. HENRY M. PARKHURST is an astronomer of high reputation at Brooklyn. He has closely watched this remarkable case for many years, and taken careful notes of the phenomena he has witnessed:

He has spent hours at her bedside, and, wishing to satisfy himself from a scientific basis, has made many tests of her powers and has reached many interesting conclusions. Mr. Parkhurst was at first inclined to suspect that Miss Fancher's power of second sight was derived from an ability to read minds. It was noticed that she rarely extended her vision beyond her friends, or some one who in some way was interested in her. "She reads their thoughts," said Mr. Parkhurst to himself. To prove or disprove this theory he made two tests. "If I take to her a sealed letter, the contents of which neither myself nor any of her friends has any knowledge, and she is unable to decipher it, my theory will be strengthened," mused he. From the waste basket of a New York gentleman acquaintance he fished an unimportant business letter, without reading it, tore it into ribbons, and tore the ribbons into squares. He shook the pieces well together, put them into an envelope, and sealed it. This he subsequently handed to Miss Fancher. The blind girl took the envelope in her hand, passed her hand over it several times, called for paper and pencil, and wrote the letter *verbatim*. The seal of the envelope had not been broken. Mr. Parkhurst himself opened it, pasted the contents together, and compared the two. Miss Fancher's was a literal copy of the original.

Nevertheless, Mr. Parkhurst wished to make a severer test. He called two friends to assist him. In his house was hunted up an ancient report of a mining company that was yellow with many years of keeping. Turning at random to a page, the other gentlemen standing too far away to be able to read the text, Mr. Parkhurst cut out a fragment of the leaf containing tabulated

figures, and beneath the tables explanations of them. He averted his face as much as was possible, that he might not know even to what the text or the figures referred. Then he folded the fragment in his fingers, and with the scissors cut it into a score of pieces. Some of the bits fell upon the floor, and were allowed to remain there untouched. The others were put in an envelope by Mr. Parkhurst, and the envelope was sealed. Then Mr. Parkhurst handed the envelope to one of the gentlemen, who put it within a second envelope and sealed it, affixing a waxen wafer. In turn it was given to the third of the party, and he inclosed it in a third envelope in the same manner. Then the gentlemen went to Miss Fancher's room and asked her to give them the contents of the envelope. She took it from them, passed her thumb rapidly over it several times, and then began to write. "It is nonsense," said she. "Figures in which there are blank places; words that are incomplete; sentences in which words are missing." But the girl wrote on. Some of her sentences skipped three or four words, and began with the last five letters of a word that had ten letters. The tables of figures that she made contained blank places, but she wrote it out, and taking it with them the gentlemen went back to Mr. Parkhurst's. The original fragment from the pamphlet was pasted together, the parts that had fallen to the floor and had not been put into the envelope being designated with an ink mark. The comparison revealed that Miss Fancher had made a faithful copy of the contents of the envelope, even to writing the parts of incomplete words that had been cut in two by the scissors, the other letters of the word having fallen to the floor. Sentences, too, had been rendered intelligible by the same process; but they were written just as they appeared after mutilation.

Fix it as he might, Miss Fancher was always able to decipher Mr. Parkhurst's tests, and the result of those in this particular direction seemed convincing that mind-reading was not necessarily the secret of her second-sight seeing. That she does read minds has been established, however, by a different line of experiments. Whatever her aunt, Mrs. Crosby, knows, Miss Fancher very soon has in her possession, and it seems to matter very little what is the nature of the information.

Professor West, the Principal of the Brooklyn Heights Seminary, a well known scholar and man of science, reports his experiences. Among others, he says:

"I have taken clergymen and physicians to see her. She mystifies every one. They are charmed by her cheerfulness, her vivacity, her Christian faith. It is impossible not to admire her; yet when they see the beautiful works of art that she fashion-

without the aid of the natural eye, and when they get a glimpse of her wonderful power of so-called second sight, they become mute. I have seen persons who were afraid of her as they might be of a veritable ghost or supernatural apparition. None in all the hundreds whom I have seen at her bedside have I heard express a suspicion that she is an impostor. To see her seems to carry conviction. There is no more doubt that she does these wonderful things than that we sit here. I have seen her do them. I have sat in the twilight of a summer evening and watched her make fancy-work articles in colours, her right arm bent back of her head and resting upon a pillow, the hand capable of being slightly bent at the wrist, her fingers clenched and almost immovable. To this hand she carried the work in her left one, of which she has had the full use, and then the needle danced in and out of the canvas, drawing every thread to its proper place and tension, every colour to the exact spot. I knew she was absolutely blind; but even though she had vision she could not have seen her work while it was held in that position.

"She distinguished colours with an accuracy that made the rest of us ashamed of ourselves. One evening a physician was there, and he boldly said that he believed she could not detect the different shades. Mollie had a ball of worsted thread, in which were probably ten or twelve colours. She asked the physicianto select one, and he pulled out a piece. Mollie's face was turned from him, but he had no sooner separated it from the others than she cried out: 'Brown.' It was dark in the room, and he went to the window, pushed aside the shutter, and examined the worsted.

"'You are wrong,' said he, 'it's black!'

"'It's brown, most assuredly,' reiterated she.

"The physician supposed he was right; so he said, with the utmost confidence, 'For once you are in the wrong; it is certainly black.' Miss Mollie quietly reached for the ball of many-coloured worsteds, and pulling therefrom a thread, said: 'Here is a piece of black—that you have is dark brown.' The physician compared the two, and then saw that he was in error and that she was correct.

"She does all sorts of little things that fill you with astonishment. Sometimes I have carried to her a photograph of someone whom she knew before the accident. She always saw and recognised it before it was taken from my pocket. I know of many instances in which she has read letters while they were in an envelope in the pockets of gentlemen. As for books and newspapers she reads them readily, no matter what part of the room they are in. When first taken she seemed to read by sense of touch—which, by the way, was for many months the only sense she possessed. Drawing her thumb over the printed lines with great rapidity, she was able to tell for a long time thereafter just what the text was. Her memory of things that happened while

she was in that rigid condition was astonishingly accurate. I took her a book one day, and she drew her thumb rapidly over the title-page and began to laugh. Of course I asked the cause of her merriment, and she answered that ————, mentioning the name of a very dear friend, had two years before given her the same book; and with that she gave me a running sketch of its contents in a highly intelligent and surprisingly accurate manner.

"She soon ascertained, however, that it was not necessary to touch the words to understand their meaning, but absorbed the contents of printed or written matter. . . . To my knowledge she never has made a penny by her gifts, although having many opportunities to do so. . . . She knows who her visitors are long before they are ushered into the hall below, and she allows them to see her, or refuses, just as the whim takes her. I took Kossuth's sister there just before her departure for the Old World. Miss Mollie refused to see her. Afterward I asked Mollie for an explanation. "Why, I didn't like her looks when she entered the door," was the reply. The door is on the floor below. Another time I took a gentleman of reputation as a scholar. She directed that he be kept from her room, for the same reason—she did not like his looks. While she was blind I took a large man with a great black beard to her, and said, 'What do you think of this little man with a smooth, sharp chin?' and without turning her face, which was from us, she answered, 'He is very large and has full whiskers. I can see him.' She knows what is going on all over the country, but whether from her marvellous sight-seeing, or because she reads it, I am unable to say. She is not willing to talk to visitors about her gifts. The topic is painful to her. To her friends, however, she is more free, and she is quite willing, at times, to explain her sensations. She tells them where she goes and what she sees.

As always, the facts are denied *by those who have not witnessed them.* A certain M.D. of note was as confident as other M.D.'s have been here that *he* would detect an imposture. "So," says the Professor, "one day I took him up to see her."

"'I'll warrant she will perform none of her miracles while I am there,' he said, while on the way. We were not fairly seated before the postman's rap was heard, and down went Mollie's aunt, Mrs. Crosby, for the letter. 'It's from my friend so-and-so,' said Mollie, when her aunt was half way down stairs. Back came Mrs. Crosby with the letter, and Mollie began to tell what was in it. 'Take the slate,' said I to the unbelieving physician, 'and Mollie will dictate the contents of the letter.' Mrs. Crosby

held on to the epistle, and the doctor took the slate, and Mollie began to repeat the letter. She did not take it in her hand, and she was not within eight feet of it. After the doctor had filled the two sides of the slate, Mollie asked Mrs. Crosby to open and read the letter aloud. This she did, while the doctor examined what was on the slate. The letter was exactly the same as Mollie had dictated. The doctor went home convinced of the girl's marvellous powers."

Dr. ORMISTON, one of the physicians who has attended her from the commencement of her illness, thus reports:

"Can you explain why she does not die?" he was asked.

"I cannot; it sometimes seems incomprehensible to me how she lives with no nourishment except occasional drops of fruit juices. Her stomach instantly rejects food if food is forced into it. At times she has lost all her senses, and her body has become cold as though she were dead. Then she has rallied and has become better. She has had many ailments that of themselves were sufficient to have caused death in an ordinary person. Last month she had hay fever, and just now she has a sort of bloating of face and body. She is at times intelligent and sharp-witted, and is entertaining in her conversation. She has the worst spasms I ever saw a person recover from, and is a victim to the most violent attacks of hysteria. She has not exhibited to me much of her power of second sight, yet I am aware that she is capable of most astonishing things. I have known of remarkable tests that she has withstood."

Two other physicians, Dr. CHAUNCEY MITCHELL and Dr. GEORGE HOPKINS, who also were and are her medical attendants, certify to the phenomena, and their perfect satisfaction that the case is genuine:

Dr. Chauncey L. Mitchell, of 129, Montague-street, one of Brooklyn's oldest and most trusted physicians, said that he had known of Miss Fancher's condition for many years, and had been interested in it. He had called upon her several times with Dr. Speir, and at the request of her friends and brother physicians, and to satisfy his own curiosity, had made some very severe tests. He added: "While all the circumstances and surroundings from the first disarmed me of the suspicion of deception, it was nevertheless difficult for me to believe that the young woman could subsist upon as small a quantity of food as I was assured she had received. Her mind, too, was capable of such astonishing flights as to absolutely compel one to doubt: hence I was careful in my tests. I may say that they convinced me that Miss Fancher was not practising or attempting deception. They were perfectly

satisfactory, and they have left me at a loss to account for or to understand the laws by which her mind and her body are governed. These tests were at an early stage of her sickness, and I have not repeated them. We physicians are as a class inclined to look with suspicion upon any case in which nature's known laws are for a long time disregarded, yet I believe that, so far as human testimony can prove it, it is proved that Miss Fancher lives without partaking of food to any considerable amount, and that she possesses in an extraordinary degree the gift of so-called clairvoyance. I am not able to explain how she lives. Her case is very generally known to the physicians of New York and Brooklyn, and I have talked with many of them about it; but I never have heard given a satisfactory explanation of how she can continue to live so long in such a condition."

Dr. George G. Hopkins, of 375, Grand-avenue, said that the physicians of Brooklyn generally knew that Miss Fancher was living from year to year without partaking of enough nourishment to sustain life under ordinary circumstances: also that with her change in body came change in mind, and ability to make second-sight manifestations. He had not seen her himself, but from many conversations with physicians and others who had, he did not doubt the genuineness of what was pretended for her. He had not heard a hint that she practised imposition.

The report of this remarkable case, so instructive to Psychology, so invaluable as a revelation of the true Mechanism of Man, concludes with the curious question: "Can she ever die?"

Miss Fancher's present condition is blindness, the eyelids closed, the pupils sightless and staring; laxity of body save in her right arm, that remains rigid and doubled as above described; inability to take nourishment, with no desire for it except at long intervals, when she puts a bit of fruit or candy in her mouth for a short time, and then rejects it; torpidity of the system, with sluggish pulsation and not vigorous respiration; cheerfulness, with increasing sensitiveness to being made the theme of public gossip and to receiving strangers; enlargement of the heart and soreness in the ribs that were broken by the fall from a horse; rheumatic and neuralgic pains; frequent changes in bodily state, with tendency toward pulmonary troubles; power of speech and of hearing.

Miss Fancher longs to die, yet she tells her friends she is afraid she cannot die. "There is nothing of me to die," she says. Once, after a most death-like trance, in which it required hours of vigorous efforts to restore her, she uttered: "Why did you not let me alone? I think I might have died, had you allowed me to." . . .

Some of her friends have seriously said: "If death is the parting of the spirit from the body, and if Miss Mollie's spirit has been released from the bondage of the flesh, can she indeed ever die?"

I could fill another volume with notes of other experiments, exhibiting very similar phenomena; but repetition would be tedious, and do little to promote the objects for which alone the investigation should be pursued —addition to the store of human knowledge and the opening of a new realm to science. Some of them are, I must frankly admit, in the present stage of the inquiry, inexplicable by any of the processes here suggested, or indeed by any that have been advanced anywhere. The theory of Spirits of the dead is as inadequate for the purpose as any other. I must repeat that I have found it to fail wherever it has been applied to solve problems that the existence of a Psychic (or Soul) force does not reach. The proof of identity of the alleged spirit with the person it professes to be invariably fails when tried by the test of *knowledge*. I have been often questioned how otherwise I could account for what are called "form manifestations"—that is to say, the appearance of apparently living, breathing, intelligent beings, who come out of a room into which the Psychic has been placed alone, clothed in manifold costumes, and talk, touch, and act like ordinary mortals. I have witnessed these many times, in hope thus to solve by positive evidence a problem which mere argument can never determine. I have seen *alleged* materialised forms, touched them, spoken with them. But, in no single instance did the investigation satisfy me that the form was not the Psychic in person. Suspicious precautions were always observed that precluded sufficient tests; conditions were imposed that made detection difficult if not impossible. Faces were so disguised by head dresses that tracing of resemblances of feature was forbidden to the keenest eyes. The clothing was always such as could be put on and taken off with great speed, so as effectually to conceal

any dress that might be under it. When the hand was taken there was a nervous shrinking, as if to avoid a possible grasp. The slightest movement among the company caused an instant retreat behind the curtain. Never once could I witness, nor from friends who have better opportunities than myself could I learn that they had witnessed, *full in view* of all the persons present, at the same instant and in bright light, the Psychic and the "form." One such exhibition of the two, distinct to the eyes and palpable to the touch, standing together before half-a-dozen experimentalists, would determine the inquiry beyond further question. And yet it is not given! In every instance where devices for detection have succeeded in escaping the jealous scrutiny of the exhibitors, they have resulted in disclosing the Psychic in person as the "materalised form." In no one recorded instance has the form, when seized, proved to be any but the Psychic in disguise. I have, indeed, read of cases alleged to be more satisfactory than my own experience has been. But upon close examination of the reported evidence, always I have found some flaw that has invalidated it as *proof* of the asserted fact. Another significant circumstance is that, where only one Psychic is present, two forms never appear together. If they be, as asserted, independent existences, why should not the stage be graced, not by a succession of individuals merely, but by a simultaneous group of "forms"?

Mr. D. D. Home, whose psychic power is surpassed by few, and whose experience has been greater than that of any other Psychic, is decidedly of opinion that complete substantial bodily forms, such as are said to be exhibited, are never produced. It is said that to this he is moved by jealousy of other Psychics who rival him in this particular. But in frequent conversations with him about the various phenomena, his interest in the investigation of which, with a view to the discovery of their causes, is as great as is my own, and his ignorance of them the same, I have heard him many times make the same remark long before the

presentation of these modern "form materialisations." Mr. HOME does not at all dispute the existence of some non-molecular agencies—indeed, he differs from Mr. CROOKES and myself in believing them to be spirits of the dead. But, he says, they do not walk about as solid flesh and bone, with blood, sweat and spittle and all the belongings of the mortals with whom they mingle.

It may well be, nevertheless, that all of them are not *conscious* impostures. Many of the Psychics by whom they are presented possess undoubted psychic power, proved by innumerable experiments made upon them with decisive tests. But they hear and read of these things being done by other Psychics and they feel a strong desire to rival them. All Psychics are, in fact, somnambules, and the psychic condition is only a form of somnambulism. In this state, as the reader has already seen, the somnambule *acts* the dream suggested to him. A dream that he is a spirit would shape itself accordingly into action such as, according to his conceptions of a spirit, would be its movements. He dreams that he is a spirit and acts a spirit. Where disguises are used, this would not account for cases of concealed clothing; but even then some of the more curious features of the exhibition would admit of the explanation, that the Psychic is a somnambule while acting the part, although he consciously comes prepared to act it.

It is scarcely necessary to refer to the further objection of the inconceivable and apparently impossible manufacture in two or three minutes of an entire human body, with *all* its marvellous mechanism, and its as sudden melting in the air, which must be the actual nature of the phenomenon if it were really as it is asserted to be by Spiritualists.*

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* NOTE.—The manufacture of a perfect human body in five minutes out of material taken as rapidly from another human body is so monstrous a suggestion that its acceptance shows either entire ignorance of Physiology, and of the complicated

human structure, or an unreasoning credulity. If continued investigation should hereafter establish the asserted fact by the exhibition of the Psychic and the form together, under perfect test conditions, we may be sure that some other explanation than this of their production will be found. But, first, the fact itself must be proved.

CHAPTER XII.

COMMUNICATED PHENOMENA.

THE publication (*a*) of some of the facts and arguments contained in preceding chapters appears to have attracted much attention to the subject. Two large editions of the pamphlet were called for. It was reprinted in several of the States of America. It was, as I am informed, translated into French, German, Russian, Spanish, Italian, and widely circulated in the countries speaking those tongues. Opinions were everywhere divided, not upon the question of the *existence* of a Pyschic Force (this was not denied) but upon the contention of the Spiritualists that, although Psychic Force will explain the greater portion of the phenomena, it fails to explain sufficiently others no less true. "We admit," they say, "the existence of your Psychic Force. We go further and allow it to be the instrument by means of which the phenomena are produced. But we assert it to be the instrument only. It is, in fact, that which we term 'animal magnetism.' The name you have given to it is certainly more appropriate and we accept it accordingly. But our contention is, that Psychic Force is one agent only and not the principal one. It is merely the material which the governing and directing Intelligence employs for the purpose of manifesting itself to the human senses. What you have called *Psychic* (or

(*a*) *Spiritualism answered by Science, with the Proofs of a Psychic Force.* By Edward W. Cox, S.L. Second edition. London: Longman and Co., 1872.

Soul) Force is the *Vital* or *Nerve* Force, generated in the nerve centre and distributed by the nerve system, which some persons have in excess and with whom it is projected beyond the limits of the body, enveloping it as with an atmosphere. This is the material which the Spirits of the dead, who are always about us, but imperceptible to us, are enabled to use for the purpose of clothing their atomic structure with molecular matter, and so making their presence known, either by forcible motion of other molecular structure, or by presenting themselves personally to the senses of touch and sight. In this manner they are enabled to hold communication with the molecular world, to impress a motive force upon solid bodies, to produce in the atmosphere the waves that cause sound, and to present perceptible forms to the eye."

Science replies thus:—"Having admitted the existence of Psychic Force, and that it is, as we contend, the medium by which the phenomena are produced, we journey far together. I care not what you call it if we mean the same thing. I object only to your use of the term 'magnetism,' because it is a misleading term. The force has no relationship whatever to magnetism. We agree in this, also, that some *Intelligence* controls and directs the action of the Psychic Force. What, then, is that *Intelligence?* The divergence between us is Here. *You* assign it to Spirits of the dead. *We* say the facts do not justify your conclusion. You are too impatient; you have not fully questioned nature. Your experiments have not been numerous enough, nor your examination conducted with sufficient scientific accuracy, to justify your inferences. You are bound to exhaust all possible natural and scientific explanations before you resort to supra-mundane solutions that attempt to explain a proved fact by an unproved fact. So many problems have been already solved by Science, which formerly were universally accredited to supernatural action, because they were at the moment inexplicable, that it is not permissible at once, on the presentation of certain facts the causes of which cannot be

instantly explained, to resolve that the problem is altogether insoluble by the known laws of Nature and Science, and therefore forthwith to attribute the phenomena to Beings whose presence is imperceptible to any sense and whose existence is as yet unproved. Even if an imperceptible Being be operating, why conclude it to be the Spirit of some dead man?"

To this the Spiritualists reply:—"Because the Intelligence so asserts of itself. The communications are stated by the communicants to proceed from Spirits of the dead. Why should we doubt them?"

Science rejoins:—"Not knowing the nature of the Intelligence you cannot know if in this it is telling truth or deceiving. It *may* be that you are right. To reject your theory hastily would be to do that for which you are blamed by us—namely, leaping to a conclusion on insufficient premisses. Against the assertions of the unknown Intelligence we set all *the facts*, and we say that none of them, nor all of them together, bear out your contention. On the contrary, their tendency is to negative such a conclusion. The evidence is overwhelming that the Intelligence is in some manner associated with the Psychic, either alone or by connection with the nerve systems of one or more of the persons present. Granting this, however, there still remains the problem, which neither *Science* nor *Spiritualism* has yet succeeded in solving—how it is that the Intelligence of the Psychic directs the force? What physical conditions attend upon the operation? Or is it within the limits of probability, or even of possibility, that some other agents than either of those assigned by either party should be the producers of the phenomena?"

The discussion thus invoked brought to me a deluge of communications from many countries and from persons of all ranks and callings. I had invited reports of psychic phenomena that may have been witnessed by any competent and credible person who would authenticate his statements with his name and address. I was

astonished thus to discover how universal and frequent they were. The reports so volunteered to me did not come from professional mediums, nor were they of phenomena seen at public exhibitions or at private paid *séances*. All of them were cases that had occurred to the narrators themselves, or witnessed by them among their own children, in their own households, under circumstances and conditions that precluded the possibility of sleight-of-hand or mechanical contrivances. All of these correspondents were persons of social position, many of them high in rank, not a few distinguished in the worlds of politics, science, literature and art. Among them are noblemen, bishops, physicians, statesmen, lawyers, authors, artists, and practical men of business. Fear of the ridicule with which it has been the practice of the press to treat the phenomena, and of the abuse and misrepresentation which it has lavished upon all who dared to assert their reality, had deterred the writers from bearing public testimony to the facts that had come under their personal observation, and they were imparted to me only because I had pledged myself to hold their names in confidence. But all are authenticated to myself by name and address, and the greater portion of them are from persons whose names and fame are familiar to the world. In a popular treatise such as this, which professes to be no more than a mere outline of a great subject, it would be impracticable to do more than present to the reader a small selection from these communications, the entire of which would fill a goodly volume. Some of the phenomena thus exhibited are, I must admit, not immediately explicable on the scientific theory of a Psychic Force. But that theory is not to be rejected because it will not instantly solve *every* problem that may present itself in a field of investigation so new and strange. The marvel is that it explains so many of them. Seeing how much it has already accomplished, we may reasonably expect that further experiment will be equally successful in solving such as remain.

The following was communicated to me by a near

relative holding office in America. It relates to my daughter, who died some years ago.

New Orleans, February 13, 1873.

I was with a Medium or Psychic, or whatever else you may call him, on Tuesday last, and amongst the names of those I wished to communicate with I put down your Florry. A lady had asked me to put questions which would prove if there were an after life. I did not put any, but the question was in my mind.

After some time, and after answering some of our party with wonderful correctness, the Medium said, "A very beautiful influence is moving over me from your (my) direction. I see a young lady stooping over you with a bouquet of flowers in her hand, on which is written 'Florence.' Has anyone asked for Florence?" Before I could answer he added, "I see the whole name now—Florence Cox—and she wishes to speak to you through me. She says she is delighted to be able to communicate with you, to know that you think of her, *and to tell you that the dead live.* She says she is very happy in her present state."

I had only written her name on a piece of paper, which was tightly folded up, and I know was never opened. All took place in broad daylight. I also communicated with a man I had known in Carthagena, but the result would not interest you. He wrote his reply *on* the table, and the signature is almost exactly like what he wrote when living, and it is a peculiar one.

This is extremely mysterious at first sight, but readily explicable on reflection. It must be remembered that my relative had written the name of my daughter on the pellet, and therefore had the idea or image of her in his mind at the moment, and by the process already described, the idea in his mind was impressed upon the mind of the Psychic. It was clearly a case of what is incorrectly called *Thought Reading.*

The next, though long, is extremely interesting and valuable, inasmuch as it describes minutely the sensations that attend the possession and exercise of Psychic Force. The writer is a Psychic of rare power and possesses a thinking and observing mind, which has minutely noted its own condition.

Barre, Mass., U.S., Sept. 2nd, 1872.

SIR,—It is not till within a few weeks that your work, "Spiritualism answered by Science," has come into my hands, though I have sought for it ever since its publication. At the close of

your book, an invitation is extended to any reader who had experimented or investigated the subject to communicate to you the result of his experiences. This, sir, is the excuse I have to offer for thus introducing myself.

Allow me, sir, *first* to state, that my joy knew no bounds when I learned, through the reviews, that a society had actually undertaken to investigate these phenomena, and that their report was *adverse* to the spiritualistic theory, *first*, because I had so long desired that the subject should be treated scientifically rather than theologically, and *second*, because your theory, as near as I could judge from the criticisms, was *my* theory; and I then looked forward to something like a correct solution of the whole mystery. I knew it was not speedy, that the ice only was broken, and that future associations and experiments almost infinite, must take place ere the goal would be reached. But I perceived you were on the right track, and hailed with thanksgivings of joy any approach to the long-desired explanation, so earnestly wished for by myself and every true lover and friend of scientific phenomena.

Second. Let me say, that all my life long I have been subject to these influences, but not until the last twenty-two years have these manifestations been so visible as to be particularly remarked by myself or others. It was during, and upon the recovery from, a spinal illness of four years that this phenomenon developed itself, and then *mainly* in the direction of mentality instead of physical demonstrations, though sounds and movements accompanied the other manifestations. It will be impossible for me to give you any just idea of the extent and variety of this influence in this paper, therefore please excuse me if my statements are fragmentary and somewhat tangled.

In the autumn of 1849 I developed (as the spiritualists would call it) in my own sick room, without the aid of any medium or magnetiser, into a clairvoyant for seeing physical conditions, mental conditions, and all other conditions; examined and prescribed for disease; laid my hands on invalids and healed them; wrote out facts of which I had no knowledge, nor any other person present; personated character; spoke and wrote on religious and literary subjects, of which I had no knowledge; and in process of time spoke and wrote in foreign languages, improvised in prose and poetry, possessed the power of influencing others, so that they, too, would speak, write, sing, have the sounds and movements, examine and heal as I did myself; most of these phenomena being entirely new to me, to those upon whom it was exercised, and to those by whom it was witnessed.

During all this time I gained in strength, and in process of time was *more* than restored to my usual health, having a feeble constitution and chill temperament,

I was never *un*conscious, but more *in*wardly conscious than

when in a natural state, extremely sensitive, hearing all that was said and done around me, yet usually appearing as perfectly normal as any one, though the language spoken by me was scarcely ever retained, while the idea remained the same as if I was reading a book in the natural state.

From the first objections rose in my mind to the spiritualistic theory, many phases of the phenomena as felt by and manifested through myself being unaccountable upon that supposition. My own sensations and convictions finally gave the lie to the solution on that basis. Being always conscious and able to note and test all my internal sensations and physical conditions, to observe external facts as well as internal evidence, to examine others when similarly influenced, aided me in my investigations and conclusions. As my doubts were unfolded from time to time, believers rebuked me for "*want of faith*," &c.; but all to no purpose, for my convictions became so strong that I "refused longer to be called the son of Pharaoh's daughter," or a spiritualist.

Now for my third statement, which is my present theory. When first influenced, it seemed as if a second self prompted me from within, as though it *was myself*, an unknown part of myself, moving me by impulse to say and do that which I had never heard of before, *which was a fact* in most cases demonstrable, such as repeating the names of persons absent to their friends present, giving dates, events, &c. When I personated other individuals, which was as easy as to act myself, it seemed for the time that I was endowed with another nature, acting out their most minute peculiarities, even when I had never seen or heard of them, connecting myself with them simply by having accidentally come in contact with some friend or acquaintance of theirs.

I could always resist these influences if I chose, but did not wish to make the effort; besides, they were very pleasant and health-giving to me. Sometimes my appearance was like a half-magnetised person, though quite frequently no perceptible change was observable.

When the sounds followed me or accompanied the influence, I could never converse through them or control them in the least; yet they would come in showers around me, when alone and writing under this influence, in little taps upon my person, or loud thumps upon the table or on the floor. Not unfrequently I could feel a thrill pass over or through me as they escaped from my person. They appeared to me to be mental vibrations from my own mind, and to be caused by a superabundance of this electrical element which you have called Psychic Force, which was set free by my mental activity, producing a concussion, by striking some hard substance; or that it burst in the air in a series of little snicks, not unlike what can be produced by snapping the nails of the thumb and forefinger together rapidly. It seemed as if it emanated from the pores of my skin, and spun out like little

glass threads breaking all around me, making the sounds that I have attempted to describe.

I was often like a person insulated. While dressing my hair, it would crackle like the fur on a cat in cold weather, and followed my hand, flying out from my head as if in a breeze. My flannel clothing also would crackle and sparkle; the odic light would play around my fingers; some persons, on touching them, or my forehead, could attract it to themselves, and would receive a shock, like as from a galvanic battery; while others would be completely magnetised by taking my hand, or while I was talking in private or in public, without my will or knowledge. In these experiments this force was strongly manifested, though not frequently, the exercise exhausting me greatly. Twice, while sitting at the breakfast table in New York City, in 1855, without being aware of the fact till I *felt* it was so, I remarked to the family, "this table is held down," and it could not be raised from the floor. It seemed to me that ten thousand of those little threads, before spoken of, extended or projected from as many pores in my body, and entered the pores of the table, and, instead of inflating it, as usual, to cause it to rise, held it down; and that the table became charged with the force, which seemed *tons*, while my system was relieved, of the corresponding weight. When I placed my own hand beneath the table, it seemed as if it increased the force, pushing it down all the stronger as I vainly attempted to raise it. Several times, at intervals, this charging process would come upon me and pass upon the table, lasting perhaps half a minute or a minute at each time. At this time I had never heard of a table being held down, consequently was not experimenting.

At another time, and at another place, when a table moved after me, my sensations were as if my right side, which was next to the table, was filled with those little projecting threads, finer than mind can imagine, and as if like electrical wires they were fastened into as many pores of the table; and when I turned to the right or the left, as I did for the experiment, the table moved precisely as I did, and whirled with me as I whirled, and as would a broom if I had held the handle in my hand, though I was not within a foot or two of the table and did not touch it.

I spoke of pores in the table. Pardon me, sir, but it appears to me that the Psychic Force, like insensible perspiration, is continually emanating from the body; and, as you have stated, is possessed by all persons in different degrees of quantity and force, and by the same person at different times more or less; and that it is so subtle, so refined, and yet so permeating in its nature, that even solid substances like wood can become inflated with it, and be buoyed in the air and float about. We all know that wood is porous, not so dense but that it will admit of shrinking, and may not this etherealised, humanised electricity

be as powerful in its own sphere, mental and physical, as is atmospherical electricity in its own sphere—the air? It so seems to me, sir, as my sensations during these exhibitions of power are analysed by myself, according to facts; and that Sir Isaac Newton's luminiferous ether, Dr. Carpenter's "Unconscious Cerebration," Messrs. Cox, Crookes, and Huggins's "Psychic Force," and my own "vitalized mental electricity," are all one and the same force.

I wish it was in my power to describe my sensations while being lifted from my bed by this unseen influence and laid upon the floor. It was as if a sustaining power, proceeding from myself, was beneath me, gently assisting me to descend, floating me, as it were, upon a surface of ether that evaporated gradually till the floor was reached. While sitting, both myself and chair have been often lifted, producing similar sensations though not so vivid. Your theory will gain adherents, and call even the spiritual believer to your side, since he admits the existence of the force, though claiming it to be used by a disembodied spirit for the purpose of communicating and performing the other antics of spiritualism. Here is where we differ. You, with myself, do not believe in any spiritual agency whatever, except such as is exercised consciously or unconsciously by mortals.

Unlike yourself, my experience proves to me, that very often my inner unfolding and outward manifestations are very far beyond or superior to my *then* present development, though I cheerfully admit never, I think, above my *possible educated capacity*. It is not possible to project through any person aught beyond his capacity. You cannot drive an inch stream through a half-inch auger hole. Excuse the comparison, but it illustrates the point. If, by the friction, the auger hole increases in size, then the stream may be correspondingly increased. And so of the perceptive faculties; a person may become educated *permanently* by these entranced ideas enlarging his mental capacity.

Permit me, sir, to add, in closing, for I feel you will like to know, that these influences have never left me (though unexercised except on ordinary occasions) for nearly ten years; most of their phases being now recalled at will, or rather the condition that can manifest them in *some* form.

I deem it just to myself to say, that I esteem the force and its results to be of equal importance as when under its constant and immediate influence; but the theory of spiritualism has been for [illegible] regarded by me, never having more than *tolerated* it [illegible] felt that I should live to see spiritualism con[illegible]ed by science; therefore the dawning of that day [illegible] with the sincerest pleasure, second only to the rise [illegible] influence itself.

Any way in which I can be of use to you hereafter in your investigations will be a favour which I shall greatly appreciate, as my life is reckoned by its ideas obtained and imparted, rather than its dollars gained.

The following was addressed to me without any injunction to secresy. The writer is sister to Mrs. Stowe, the authoress, and of the Rev. Beecher Stowe, America's most famous preacher. I should state that I was an entire stranger to her.

69, West 38 Street, New York City.

For more than twenty years I have investigated the phenomena of clairvoyance and spiritualism, and have facts, both in print and MSS., which may perhaps be serviceable to you. I will mention *one* which I should like to have investigated, and this is a short statement of it.

While Mrs. Stowe (my sister) was noticing certain letters in private, purporting to be Lady Byron's, at a *séance* with Kate Fox and several of my brothers and sisters, Mrs. Stowe inquired of Lady B. if these letters were authentic. The answer was, "Partly so." Mrs. S. said, "How can I find out?" The reply was, "Go to Bentley."

Now, no one of the party could think of any person known to them with that name except Professor Stowe, who said, "I believe that is a London publisher." Mrs. Stowe wrote to Macmillan to inquire, and I think, though I am not sure, that he replied that Bentley had some letters. I should like to learn the exact facts.

This is one of many cases where I have heard from the invisible agent what no one present could have known.

I am clear that some intelligent agents not present in the bodies of those present make these communications; but that they are spirits of departed persons once living on earth I cannot perceive to be *capable of proof*. That they are in many cases *not* the spirits of the persons they profess to be *can* be proved.

Truly your friend,
CATHERINE E. BEECHER.

This also is explicable by the Psychic Theory, which accepts as a fact what is *called* "thought-reading"—and which is in truth *brain sympathy*. As previously shown, *Memory* and *Recollection* are distinct acts of the mind, although so commonly confused in thought and speech. It is highly probable that every impression made upon the

brain, even if we are not conscious of it at the moment, is stored in the *Memory*, and that many of our unaccountable thoughts are revivals of these unconscious memories. *Recollection* is dependent on conditions of which we are as yet wholly ignorant. Therefore, before it can be affirmed that a fact was not in the *memory* of some person present, we must be assured that it could *never* have been unconsciously impressed upon the mind. The explanation of all the cases I have seen, or which have been reported to me, of communication of something that is said not to have been known to the Psychic or to any of the persons present is, that they have mistaken *Recollection* for *Memory*. Because no person could *recollect* the circumstance, it was hastily concluded that no person had received into his mind the impression of it, either consciously or unconsciously. *How* the Psychic's mind comes to be impressed by memories in another mind is, of course, a problem, of which I have ventured to suggest the solution (*ante*, p. 22.) Of *the fact* that such a mental sympathy exists, and that such "thought readings" occur, there is overwhelming evidence. The instance narrated by Miss Beecher is manifestly one of them.

To these I will add another, to which the same explanation will apply. The writer is an officer of rank in the English Army.

Hamilton, Canada, 24*th Sept.*, 1872.

I have read with much pleasure your pamphlet containing the answer of science to spiritualism. I observe that you invite your readers to furnish you with any facts which may tend to dissipate the mist which at present hangs over this, as you truly deem it, most important subject.

Some years since my mother was told by a Mrs. Thrale, a sister of Agnes Strickland, the authoress, that she had received communications from her husband about matters which she alone knew of. Upon one occasion a series of letters were received, which the recorder could make nothing of, but which she syllabled off, and found them to be an intelligent communication from an Italian, in Italian, to her daughter. The principal reason why I trouble you with these, I fear to you, wearisome details, is that what I have to narrate appears to me to conflict with your

assumption, that the matter received *is* "always in the mind of the medium, or some one present."

I was at a sitting one night, when the spirit of a brother of Mr. McB. was announced as present; his relationship, age, and peculiar manner of death were given correctly. No one at the table but Mr. McB. himself knew of his existence. His name was now asked for. "Alexander John" was the reply. As far as it goes, the reply was true; but his name was "*John Alexander*." By the cerebral operation theory, the name should have been rapped out correctly, as it was evolved from the brain of McB. Perhaps it changed *en route* to the table? The message he received at this time was "all happiness." At another time it was one of warning and advice!

Still another: a short time previous to the sitting at which what I am about to narrate took place, we had been told by a writing medium that my sister, a few months deceased, had met the spirit of a friend, Fanny C. At the sitting my wife asked, "Is there any spirit friend with you now?" "Yes." "Who?" "Fanny." At this point I said, "I know what is coming," thinking of Fanny C. "So do I," replied my wife, expecting Fanny C. But to our surprise Fanny M. came. Now this Fanny M. was my wife's favourite sister, who died eighteen years since. We of course knew, after the first syllable had appeared. The only other person at the table of my own family was my little girl, eleven years old, to whom Fanny M. is a myth, as Fanny died years before my child was born, and the other three persons knew nothing of her. I may say that, calling out the alphabet, I instinctively paused at C., expecting it to be the first letter, and I could not think what was to follow. This, of course, will be to you hearsay; to me it is fact.

E. R. R.

This again is a clear case of thought-reading (or rather of *brain sympathy*) which will sufficiently explain all the seemingly marvellous communications.

Another phenomenon requires to be noticed here, although its existence must be pronounced problematical as yet. There is, however, so large an amount of evidence in its favour that it deserves some examination. If there be any truth in it, most important material will be provided for the assistance of the Psychologist in the great work now before him.

The Reader is doubtless acquainted with an alleged psychological phenomenon reported as existing in many countries, but especially among the people of Scotland,

to which the name of *Second Sight* has been given. Whencesoever coming, the reports are substantially the same. They allege the appearance of ghostly forms, not of the dead, but of the *living!* and many of the narratives are by persons who aver that they have seen their own *wraiths* or spirits. This faculty of Second Sight is said to be hereditary. The spectral appearance is supposed to indicate coming death or impending misfortune to the person so visited. There are few families in Scotland who have not a tradition of this nature, and not a few living men and women affirm, with evident conscientiousness, that they have themselves witnessed the warning vision.

The obvious explanation of this phenomenon is the same as that which applies to ghost stories generally. They are merely mental illusions—waking dreams—pictures formed in the brain, which in sleep would have been taken to be dreams, but occurring when the patient is awake they are, by the law of association, mistaken for impressions brought to the brain by the senses, and therefore are accepted as being objects actually existing without. As with ghost stories generally, this simple explanation disposes at once of ninety-nine cases in every hundred.

But in the investigation of psychological phenomena some cases are found which certainly do not admit of such an explanation. None have been experienced by myself; but I have received reports from friends, whose capacity for observation is unquestionable, whose veracity I have no reason to doubt and whose statements I have questioned with care. If these can be relied upon, they indicate the existence of some species of psychic communication between distant *living* persons, thus to some extent sustaining the superstition of second-sight. It has been stated to me by intelligent and truthful witnesses that, sitting with Psychics, they have received communications from far off *living* friends, which could not be accounted for by Thought-reading, inasmuch as the information conveyed was of facts not

known to themselves at the time, but which afterwards were found to be true. (*a*)

It will be remembered that, in a previous chapter, it was shown how a vivid idea or conception of a person will cause in the mind of the inquirer communications made through the Psychic to appear as coming from that person. This is another proof that the Intelligence, whatever it be, directing the Psychic Force receives its knowledge from what is in the mind of the inquirer and not from perception of objects actually existing without. This does not explain the communication of facts not then known to any person present; but always the question comes in such case, if the fact had not at some time been impressed upon the mind, although not *remembered* now?

I have received from a man of great distinction, whose name and fame are familiar to every person who reads a newspaper, and who moreover to that time had been an entire sceptic as to all the phenomena of Psychism, the following curious narrative.

He had been induced to join a sitting with some friends, expecting to see an imposture that would give him abundant material for jest. He witnessed much that surprised him, but was the most startled by correct answers that were returned to a series of questions, *merely formed in his mind* (not spoken, nor written), relating to deceased friends, and which answers stated minutely names, places, dates, and incidents, and not merely vague generalities. The Psychic was a young lady of social position, a relative of his host. Instead of the anticipated frauds he had found a serious fact. Being desirous to pursue the investigation, he repeated the experiments with the same Psychic, with the same results. A few

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(*a*) Is it possible that there be any truth in this world-wide belief in the Double? That it may be in some manner connected with the duplex structure consequent upon the double germ by which organic being is produced? I submit the query for reflection.

days afterwards he made trial of it in his own house, with only a male friend present, of the same social rank as himself and who had never exhibited the slightest psychic power. The two seated themselves at a table to try if anything would occur to them. Presently came rappings and tiltings and the usual signs of the presence of the force. Questions were asked and answered in the customary manner. "There was," said my informant, "a dear friend in Scotland, with whom I had a slight difference that troubled me. This was strongly in my mind, but I was at the moment asking for a communication from a dead friend. The signal was given of a presence. I inquired who was now addressing me. The name given was not that of the dead friend whom I sought for, but of the *living* friend, who was in my mind, but whose name was not anticipated. 'Where are you now?' I asked.—The answer was, 'In Edinburgh.'—'Whereabout there?' Answer: 'At Mrs. ——,' (naming her). —'What address?' 'No. —— Street,' (naming them.)—'Are you alive?' 'Yes.'" A long dialogue followed, relating to the difference between them, which it is not necessary to report, and then my friend said, "Give me some token of your regard." "Upon my saying this" (said my informant) "the table, untouched, glided gently to me, as I was sitting at some distance from it, and touched me twice." In this experiment no Psychic was present. The two distinguished men sat alone.

Communications and motions of the table are of course daily to be witnessed. The remarkable feature of this case is, that the communication came not from the dead, but from the *living*. My instant conclusion on the narration of it was, that it was a case of thought-reading and a strong confirmation of the existence of that curious psychological condition. But the sequel seems to negative this conclusion. In answer to a question, my informant stated that his friend resided in another part of Scotland, and that he had no knowledge she was in Edinburgh at that time, but believed her

to be at her residence. The name and address of the lady with whom she was staying were alike unknown to him, and he only learned the fact by writing to her on the following day at the address that had been thus strangely communicated to him. In reply, he was informed that she was alive and well, and that she had unexpectedly gone to Edinburgh, on the day the experiment was made, to visit the lady whose name and address had been given. At my request an inquiry was made if the friend was waking or sleeping at the time of the communication, for it is said that this phenomenon occurs only when the person supposed to be seen is sleeping or in the trance condition. The answer returned was that she was in bed and in a sleep unusually profound.

A case of a somewhat similar mental communication between distant *living* persons will be found narrated (*ante*, p. 131), on the authority of Dr. ABERCROMBIE.

If cases similar to this should be confirmed (and the subject should receive the most careful investigation by Psychologists), they will throw a new light upon the relationship of soul and body and the capacity for mental communication when the Conscious Self is released from the limitations imposed by the conditions of the machinery through which the normal process of mental intercourse is conducted. If, under the special conditions exhibited in Psychism, Mind can impress Mind, or Soul Soul, at an indefinite distance, another proof will be given of the existence of Soul as distinct from body. It will also go far to invalidate the conclusion, that the communicants are Spirits of the dead; for if precisely the same intercourse can be had with the Souls of the *living*, it is plain that the actual presence of Souls of the dead is not necessary to the production of the phenomenon.

I might fill a whole volume with similar experiments. The exigencies of space forbid. These few must suffice.

CHAPTER XIII.

THE PHYSIOLOGY AND PSYCHOLOGY OF PSYCHISM.

SUCH are the facts, such are some of the phenomena, of Psychism. That these things *are*, whatever may be their causes, nobody who has patiently pursued the investigation through a dozen experimental trials with crucial tests has ever doubted, or, if a sane man, *could* doubt. If they be not proved as objective facts presented to our senses nothing is proved. We must doubt our own existence and the existence of everything about us. If the evidence of the senses is to be rejected in this, it can be accepted in no instance, and there must be an end to all human testimony, to all knowledge and to all action based upon knowledge. We must close our Courts of Justice. We must burn our books.

But acceptance of the phenomenal *facts*, as presented to the senses, does not carry with it of necessity acceptance of any of their asserted causes. It may still be contended that they are impostures. Various physical causes may be suggested. They may be looked upon as supernatural. All these propositions are fairly open to discussion.

That not all nor many of them are *impostures*, the experiments reported (a few from a multitude) will satisfy the unprejudiced reader as it satisfied the scientific observers.

If not impostures they are *realities*, and then the question comes, whence and what are they?

Conclusions or conjectures must resolve themselves into these few.

Some intelligent force being undoubtedly in action, this force must proceed

1. From the Psychic, with or without the assistance of the psychic force of the persons about him; or

2. From some external and independent entity, which must be either (1), The disembodied Soul of a dead human being; or (2), Some beings about us imperceptible to us in the normal conditions of the mechanism, inhabiting this world with us, and who in certain conditions are enabled to manifest their presence by exercising a mechanical force upon molecular matter, and occasionally by becoming perceptible to our senses.

The reasons for the conclusion that the force proceeds from the Psychic, and is directed by his intelligence, have been already stated (*ante*, p. 409), and need not to be repeated.

From what part of the organism the force proceeds is a problem yet to be solved. It is manifestly associated with the nerve system, for it is to a great degree dependent upon the nervous condition, flowing when its energy flows and flagging when that flags.

But the force is greatest when the nerves of the senses are paralysed; and in proportion to the extent of that paralysis is the power and range of the force. It is greatest in the condition of *Trance*, which appears to be the severance of Conscious Self from its material mechanism, the force being then directed with more of Intelligence. The Conscious Self then appears to control and determine the direction of the Force without the normal employment of the mechanism of the brain. Hence the reasonable conclusion that the force is other than the nerve force that moves the mechanism in its normal state—that it is, in fact, the other force which, in the normal state, *determines and directs the action of the mechanism*. The difference between these two forces—the psychic force and the nerve force—is that which makes the distinction between a machine

and a Man. A machine cannot *determine the direction* of its motions. A Man can do so.

This directing and determining force being guided by Intelligence, my contention is that it comes from an *Intelligent Thing*. In this treatise that Intelligent Thing is called the *Conscious Self* (or Soul), and therefore it is that I have ventured to call the force that comes from it—the PSYCHIC (OR SOUL) FORCE.

The phenomena described disclose the presence of some special faculties as attaching to the force, or more probably to the Conscious Self or Soul when directing the force, and which will explain many of the most mysterious of the phenomena presented to us.

Conspicuous among these is the power of what is popularly called "thought-reading," but which Science would more correctly describe as "*Mental Sympathy and Communion.*" In the special conditions of the mechanism that admit of abnormal development by the psychic force, the Conscious Self is sensitive to the mental action of other persons having at the time a certain relationship to it, known as being *en rapport*. The scientific explanation of this is that the motions of one mind are sympathetically set up in the other mind (*ante*, p. 26) and mental motion makes an idea or a sentiment.

Mechanical action has been already considered.

The condition of the Psychic is the same as that seen in Somnambulism and Hypnotism. The normal relationship between the Conscious Self (or Soul) and the mechanism of the body is disturbed. Instead of working in perfect co-ordination, as in the normal state of the mechanism, they act more or less independently. Then the Conscious Self (or Soul) receives impressions from the external world *directly*, without the intervention of the senses and through some other medium, and also is enabled to act upon that world directly, without its normal and usual medium the molecular mechanism of the body.

Such is the explanation of the ordinary phenomena of Psychism which, after patient and protracted examination

of them, and much reflection, I venture to suggest for the consideration of those who desire the advancement of knowledge, for the sake of Science.

Undoubtedly there are other phenomena, described in the experiments here reported, and exhibited in the many more from which these were but a selected few, that will not admit of this explanation. Intelligent forces are seen to be in active operation which a mere force projected from the Psychic will not account for. A personality of some kind is often manifestly present.

This presence of a personality admits of one of three explanations only.

1. The popular theory is that this acting and active intelligent personality is the disembodied spirit of some human being who has passed away from this life.

In a prior chapter (*ante*, p. 384), the powerful reasons have been stated for rejecting this solution of the problem.

On my own part, that conclusion was forced upon me with extreme reluctance and much sorrow. I had investigated the phenomena with an earnest hope that I should receive, as many enthusiastic friends assured me, conclusive and convincing proof that, *as a fact in nature and not as a faith merely*, the Soul survives death, and that the dead communicate with the living by touch and sight and speech. On the first aspect of the phenomena I was inclined towards this conclusion. But the more I witnessed of them, and the more I reflected upon them, the greater grew my doubts as to the sufficiency of this explanation. As the observed facts multiplied, the evidence lessened in amount and weight. To one fact that confirmed the desired conclusion ten went to negative it. Having closely investigated a vast number of phenomena that were confidently adduced as demonstrating the presence of Spirits of the dead, I must candidly avow that I have not witnessed one that could be accepted as satisfactory by any judicial mind, or that did not admit of some other explanation, physically or psychologically. Scientists and others who,

like myself, have examined the phenomena *as a Science* and not as a Religion, have, I know, arrived at the same conclusion, and are confident that, *whosoever the agents be, they are not Spirits of the dead.*

Whatever prepossession we had was in favour of that theory. We were anxious to prove it true, as who would not be? It would have determined for ever, beyond question, the problem of Man's future. It would have decided the question as to the Mechanism of Man, and reduced to a single page in this treatise an inquiry which now occupies half a volume.

2. Another suggested Agent is the Spirit of the Psychic, and three-fourths of the evidence supports that hypothesis. The reasons for it have been already set forth (*ante*, p. 334), and need not be repeated. The relationship, in all their characteristics, between the phenomena and the Psychic are obvious to every impartia observer—so obvious, indeed, that Spiritualists are driven to strain their ingenuity in order to account for this resemblance. On the other hand, it is fair to admit the difficulties that surround the psychological theory. The force exercised is either "action at a distance," or there is positive contact of the moved molecular structure by something itself molecular or non-molecular. Science questions the possibility of the former. The latter involves the projection of something from the Psychic, which not only can impart motion to solid bodies, but be itself directed by his Intelligence. If there be such a projected *something*, there is but one conclusion, that an intelligent something within the Psychic is acting outside of and in practical severance from his body.

It is contended by some that the mere Will, strongly directed, can exercise a force that affects external objects. It is certain that a strongly exercised Will can move other *minds*, slightly in the normal condition, but to the extent of entire control of them in somnambulism and other abnormal conditions. In Psychism the position is reversed. The Psychic is the Somnambule who controls, and not the Entity that is controlled. In fact, none of

the Phenomena are produced, or in any way governed, by the Will of the Psychic. He is a wholly unconscious agent. He feels a certain nervous shock when he passes into the condition, and again when he passes out of it, exhibited externally in a convulsive action of the muscles that invariably precedes the exhibition of the phenomena. But during the entire of their occurrence he is purely passive—often is wholly unconscious,—and always he is more or less in a condition identical with that of Hypnotism.

The explanation by the spiritualists of these features attending the production of the phenomena is creditable to their ingenuity, but is it probable? They say that the disembodied spirit clothes itself, as it were, in something (the very existence of which is unknown and unproved) that is supposed to emanate from the body of the medium, by appropriating which it is enabled to take shape and substance, to become perceptible to the human senses, and to exercise mechanical force upon molecular matter. Hence, they say, the necessity for the presence of a Psychic.

This hypothesis appears sufficiently extravagant. Examined, it refutes itself. There is no evidence whatever that the body of the Psychic can emit molecules enough in five minutes to build another human body; nor that any perfect human body could be as quickly built, even if the material for it were provided. If it be said that it is merely nerve force, and not the substantial constituents of body, that the Psychic supplies, it remains to be shown how nerve force alone could do what all see, hear, and feel.

The inconclusive conclusion is that we know very little about it. Probably there is some fundamental error in our reasoning, or we build upon a wrong basis. When the truth is found, doubtless it will differ entirely from anything we have ever conjectured; and when we learn it we shall be surprised at its simplicity, and wonder that it should not have occurred to us before. We start with certain *assumptions* as to man's structure and the

structure of the Universe, and the nature of matter and non-matter (or spirit), upon which assumptions we base all our reasonings, and try to account for all the facts and phenomena we witness. If we err as to these assumptions, we may readily understand why it is that we fail to find a clue to the causes of the phenomena, and why ingenious conjecture based upon some facts is, almost as soon as proved, contradicted by some other facts.

The touch of fingers is often felt; hands are sometimes seen. When held, they are found to be soft, warm, moist, seemingly true flesh and bone. If forcibly held, they are withdrawn by force or they melt in the grasp. The strongest man has never yet succeeded in retaining his hold, although apparently of the hand of a child. When seen—as often they are—they are invariably of an ashen grey hue, quite unlike that of any living hand, but perfect in shape and motion. A hand can be seen playing an accordion, striking the keys of a pianoforte, carrying a flower from one person to another, ringing a bell, winding up a musical box, writing with a pencil, patting the cheek, pulling the hair. One remarkable experiment was witnessed by the entire of a party of eleven persons. It was on a summer evening on the 23rd May, 1873, at the private residence of a friend. It was in full daylight. The table at which we sat was by a bow window, over which muslin curtains were drawn to exclude the sunbeams. In the centre of the table was a vase filled with spring flowers, among which were some large branches of lilac. Suddenly the curtains moved. A hand emerged out of the daylight and drew them aside, first one and then the other. Presently a hand—as of a delicate lady—appeared passing over the table. Slowly it moved before our wondering eyes to the vase of flowers. With finger and thumb it took one of the pieces of lilac and made repeated attempts to break the flower from the branch. But the wood was stout and half a minute, at the least, was occupied in bending and twisting the branch, shaking and almost upsetting the

vase in the process. At length it succeeded. Then it carried the plucked flowers across the table to Lord D., who was sitting by my side, and placed it in his hand; not six inches from me. I requested that it would touch my hand. It moved to me, patting it thrice, during all which actions I and the others examined it curiously and closely. It had the cineritious hue above described, but in all other respects it was a perfect and beautiful lady's hand. I could distinctly see the blue veins and the pink nails. Its touch was warm and soft. The daylight fell full upon it, and it was as distinct, definite, and apparently as solid as any hand upon the table. I could discern no arm. The hand was plainly visible as far as the wrist, but there it seemed to end, not with a definite outline, but melting away, as it were, into a hazy cloud or shadow. It returned across the whole width of the table—a space of eight feet—as slowly as it had come, vanished, and we saw it no more. That it was not an *illusion* is proved by this, that it was beheld by all with equal distinctness, and all agreed in description of it. It was not a momentary mental impression. It was distinctly seen, in broad daylight, by eight persons, at the same time and doing the same acts, and the large sprig of lilac that remained in Lord D.'s hand, and the broken bough in the vase, testified that an *act* had been done which could not have been a mere imagination, and a force used which could not have been fanciful. During this phenomenon the Psychic was with us at the table, lying in his chair in a condition of profound trance, far from the hand we had seen, apparently unconscious and certainly unmoving.

This, however, is only one instance of a phenomenon not uncommon, whose value consists in the satisfactory conditions under which it was presented—in daylight, in the presence of eleven spectators, at a private house, and in circumstances precluding trickery. Again the question comes, whose is the hand? The explanation of many who reject the Spiritualistic theory is based upon

the belief in "the double" that has prevailed in all countries, at all times, and still is widely held in Germany and Scotland. This means that the Soul (or Self) is a distinct entity from that body, can sever itself from the body in certain abnormal conditions, and present itself in the shape of the body to mortal senses at far distances. (*a*) Assuming that the Spirit can quit the body, wholly or partially, it must be further admitted that it can take any shape it pleases, and mould itself, not in appearance only, but in substance, to any character.

3. There remains yet a third solution of the problem, and one that daily finds more extensive acceptance with those who have devoted to the subject the most careful and profound reflection.

The hypothesis seems strange and startling when first presented, and would be at once dismissed as utterly incredible by those who had never witnessed the phenomenon. I cannot call it their *conclusions*, for to that stage their judgment has not yet advanced—but their *opinion* inclines strongly to this, that the traditions of all mankind are not so baseless as we of the nineteenth century have assumed, and that this world of ours is really inhabited by another race or other races of beings, invisible and impalpable to us, as it may be we are to them, save in certain exceptional conditions. That these existences are our inferiors in intelligence. That being of non-molecular structure they are subject to physical laws other than those that govern molecular structure. Under various names and with many different attributes

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(*a*) Overwhelming evidence appears to establish that such communications occur in certain conditions. But these instances do not require the acceptance of "the double" to support them. They are sufficiently explained by that "Mental Sympathy and Communion," which explains so many others of the seeming marvels of psychological phenomena. The form of the distant friend is in the mind, and seen with the mind's eye, and that mental vision is mistaken for an objective vision. I cannot recal any instances of an alleged "double" being seen by two or more persons at the same time.

of powers, the existence of some such non-human intelligences has been recognised by every family of the human race, is a part of all religions, was believed by the cultivated old world, is asserted everywhere in the Bible, is proclaimed by our Saviour himself, is the tradition of all the Christian Churches, was accepted by our forefathers as an unquestioned truth, and has been repudiated only within the memories of men now living. If there be any truth in this universal creed, if the Divine authority for it be accepted, as by every Christian it must be, an explanation is found of all the phenomena not explicable by psychic action.

For, if such existences there be, we know and can know so little of them as to be wholly incompetent to determine their structure, their faculties, their dispositions, their uses, the manner of their lives, their powers and capacities, their relationship to this world or to ourselves, their biology, their physiology, their psychology, their dwelling, or their destiny. Consequently it is impossible to affirm of them what they can or cannot do, or to employ any argument *à priori*. If they be the real agents in these phenomena, intercourse with them is so brief and uncertain as to afford little more than dim glimpses into knowledge of them. The hands so often seen and felt would appear to indicate that in form they are like ourselves. They seem to possess our vices and weaknesses, for they lie without scruple, pretending to know, even when they are in complete ignorance. (*a*)

(*a*) Upon reflection, I am not satisfied that the false answers and information professed to be given by the acting Intelligences (whatever they be, whether that of the Psychic, or disembodied Spirits, or of non-human existences), are positive lying, as they appear. May it not admit of another explanation? Whatsoever the Agent is, it is certain that it possesses, in an eminent degree, the faculty called "thought-reading," properly "mental sympathy and communion." The slightest experience of the phenomena forces the conviction upon the experimentalist, that whatever is strongly in the minds of those present is perceived and echoed by the Intelligence. Is it not possible that the active Intelligence may have no other knowledge than that which it

This, it may be said, however strange, is at least conceivable; but what as to the material hands? Ignorance of this, as of so many other physiological and psychological mysteries must be frankly admitted. The fact will not be disputed by any person who has enjoyed even a small experience. But by what *process* is it accomplished? The popular theory of instantaneous formation of a human body out of the organism of the Psychic and its as sudden dissolution and restoration of the material to its owner, is surely too wild an imagination to be seriously entertained by any person having the slightest knowledge of the human structure. When so little is positively known, some conjecture is permissible, and I venture one that is, at least, not scientifically impossible. We are perceptible one to another because our bodies are formed of that special combination of atoms we term molecular, which is the only form of being our senses are constructed to perceive. It is probable and consistent with the whole scheme of Creation that there should be, throughout the Universe, innumerable other forms of being constructed of some other combination of atoms than that which makes molecules, and which, therefore, in our or their normal condition, are imperceptible to us. But if, in certain conditions, a non-molecular combination of atoms became molecular, in such case, precisely as the invisible vapour in the air by a puff of cold wind becomes instantly a visible cloud—so might not the non-molecular form, coming within some favourable nervous or psychic condition, condense into molecules and so be perceptible to the human senses. Such

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thus obtains? That communicating on any subject it answers, not from its own knowledge, but from the guesses, and mistakes, and imperfect information of the minds about it, and thence the partially or wholly false communications, and the "guesses at truth" which are taken for deliberate lying. Precisely the same phenomenon is witnessed in Somnambulism. The mental action of the operator sets up a similar action in the mind of the Somnambule, who acts the suggested dream as if it were a substantial reality.

a process would require no manufacture of flesh and blood, and possibly a very slight change in the position of the particles of which the structure is composed. If this be a reasonable *suggestion* (and it can be nothing more with our present very imperfect knowledge), it still would leave in entire obscurity the question, what *is* the condition, limited as it certainly is in its range, by which the transformation is brought about.

For my own part, so far as I have been enabled to collect the evidence, and form a judgment upon it, I have arrived at some conclusions. I am satisfied,

1. That Spirits of the dead are *not* the agents that perform the actions and supply the Intelligence that undoubtedly attends and directs the phenomena of Psychism;

2. That the Psychic (or Soul) Force of the Psychic is the active agent in a large portion of the Phenomena, and that it is directed by *his* Intelligence;

3. With reference to other Phenomena that cannot be so accounted for (although far from having formed an *opinion*) the inclination of my judgment, upon a review of all the evidence, is in strict accordance with the teachings of the Bible, and the records of all history—that they are due to the agency of some non-human beings who inhabit this earth with us, but our inferiors in intelligence —beings of non-molecular structure, and, therefore, imperceptible to us. But whether they be, as they have been variously termed, angels, demons, Pucks, gnomes, Souls of the dead, imperfect Souls not yet embodied (as the Theosophists contend), there is absolutely *no* evidence. We must still be content to collect facts by patient and protracted observation and experiment, before we can venture with any confidence to broach a theory.

BOOK VIII.

THE ARGUMENT.

CHAPTER I.

THE SUMMING UP.

HAVING thus noted the Mechanism of Man in action, alike in its normal and its abnormal conditions, treating the latter as being the best, if not the only, avenue to knowledge of the functions of the various parts of that mechanism, it will be useful, perhaps, to present a summary of the results of that survey, showing how nearly allied are the various phenomena, and how all of them converge to the conclusion that there is an *Intelligent Self* (or *Soul*), as part of the Mechanism of Man, or rather that Man is a Soul clothed with a molecular body, as being necessary to existence in a molecular world.

In the normal relationship of Soul and body there is little to be seen that would indicate a separate existence, or from which the conclusion might not be reasonably drawn that the Mechanism of Man is nothing more than that which the scalpel reveals to us; that is to say, a structure of bones, moved by muscles, governed by nerves, whose action is determined and directed by the Intelligence that has its source and seat in the brain.

This, shortly stated, is the theory of Materialism, and it is indisputable, so far as it goes. It is the contention

of *Psychology* that this is not the whole process of intelligent life, nor the entire of the Mechanism of Man. We assert, and it is the purpose of this treatise *to produce evidence to justify the assertion,* that there is a *Consciousness of Individuality,* which brain and nerve cannot account for; that there are emotions, and sentiments, and intelligence, which cannot be mere secretions of brain matter; *memory* and *recollection* that are inconsistent with the molecular changes which every particle of the brain undergoes many times in a course of a life. Therefore, that the Mechanism of Man, *as we see it in action,* involves the existence of something more than brain and nerve—something that continues to be *the same Self* while the brain continually changes—something that is *conscious* of what the brain does;—something that makes us say "I" and "You." Psychology proposes to prove the existence of this *Intelligent Something* by precisely the same evidence as the existence of the other motive forces of Nature are proved—by their action upon the molecular structure of the external world, molecular combination being the only form of the numberless combinations of atoms that is perceptible by our very limited senses.

We call this *something* "Soul" merely for lack of a term that would be at once intelligible to the Reader and yet free from the pre-judgment arising out of the vague notion that every person has more or less preformed as to the nature of Soul.

But it must be distinctly understood that all such fanciful conceptions must be discarded. Nothing is intended to be affirmed in this treatise as to what the structure of Soul is, or in what manner it is associated with the molecular mechanism. The *something* that for convenience we term "the Soul" (or Self) in this little treatise is to be understood as being merely a name given to *the thing* (whatever it be) that is "You" or "I," and in this sense only is it to be here read.

The course of our argument has been, to trace the phenomena exhibited in the *abnormal* conditions of the

mechanism from the most frequent and familiar to the most rare and strange. Not that the most seeming marvellous and mysterious of the phenomena are in truth more wondrous or wrapt in mystery than those we continually contemplate without wonder or perplexity. In reality, all are equally marvellous and inexplicable, only some are familiar and some are rare. If, for instance, "the phenomena of Dream" were as rare as are those of Psychism, and if Psychic phenomena were as familiar to us as those of Dream, we should accept the Psychic facts without surprise or curiosity, and view the phenomena of Dream with wonder and with doubt; the asserter of them would be accused of "diluted insanity," and perhaps prosecuted as a rogue and a vagabond.

Some, accepting this conclusion from the proved facts, have expressed much doubt and difficulty in finding a rational explanation of the action of the Conscious Self (or Soul)—that is to say—through what non-molecular medium it is that, in the abnormal condition of partial severance from the mechanism of the body, it obtains its knowledge and exercises its powers.

There is no need to resort to the Supernatural for a solution of this problem. Recent Science has supplied a clue. Scientific discovery is advancing with a rapidity that threatens a revolution in our conception of the construction of the material (that is, the molecular) universe and the laws that govern it. Not merely have we learned that our notions of that structure are wrongly based—such for instance, as our conception of *solidity*, which does not exist—but that we are surrounded by forces and media of which we have been absolutely ignorant hitherto. Mr. NORMAN LOCKYER, F.R.S., has decomposed an "element." Mr. W. CROOKES, F.R.S., has demonstrated the existence of a "supra-gaseous," that is, a fourth and hitherto unrecognised condition of matter, so refined that light moves in it in curves instead of straight lines as in the infinitely coarser atmosphere. TYNDALL and others hold that there is an ether yet more rare, in which all molecular structure is floating. We know not

how many other forms of being may exist, constructed of other combinations of particles and therefore imperceptible to us. The mathematicians of Germany are proving mathematically that there is a fourth dimension of space beyond those of length, breadth, and depth, (which are alone conceivable by the human mind), but in which condition a whole Universe of mind and matter might exist and yet be wholly unrecognisable by the human senses or the human Intelligence. (*a*) Thus that which was merely conjecture and speculation when the earlier pages of this volume were printed have taken their places in science as proved facts, furnishing clear solutions of a multitude of problems, and explanations of hundreds of phenomena, psychological and physical, which before had been wrapped in impenetrable mystery.

They who have pursued the chain of facts and arguments in this sketch of the Human Mechanism, as it is seen in action, will understand my contention to be that the Machine is not merely an admirable automaton, constructed with marvellous ingenuity to perform a certain prescribed series of actions, under the impulse of a blind force, which merely imparts motion to the machinery but does not guide it, and on the ceasing of which the machine stops, dies and is dissipated, but that the Force moving the material mechanism is itself set in motion and directed by an *Intelligence*, that has a *Will*, whose commands, within the limit of its capacities, the mechanism obeys.

It is my contention, further, that this controlling Intelligence is not the visible material machine, nor the product of its structure; but that it is a distinct and definite entity, existing in it, probably permeating it,

(*a*) They assert that in this fourth condition of space, matter must possess quite other properties than such as are recognisable by our limited powers of conception and perception, as for instance, that a hollow sphere might be turned inside out without breach of continuity, and that a knot might be tied in an endless cord.

and intimately associated with it. This distinct and definite entity, whatever be its form, structure, or qualities, is the *thing* that, in these pages, is intended by the term—the SOUL. It is of secondary moment what that Soul is, its shape, its substance, its manner of being. The important fact *first* to be determined, by *evidence* supplied by a scientific examination of the Mechanism of Man, as seen in action, may be thus expressed:

Is the mechanism merely that material structure which is perceptible to the senses, growing, moving, decaying, dying, and dissolving?

Or, is the mechanism compounded of *something* other than the material body, that is *not* perceptible to the senses and whose presence can be proved only by its action upon that which is perceptible; a *something* that permeates and possesses the molecular structure, converting it from an automaton to an Intelligence, directing its motions, living with it in closest union, but not dying with it; a *something* that is not dissipated with it, but continues to exist in some form, under some new conditions, after the molecular structure has been resolved into its elements?

These questions are not new. They have been in controversy for ages. Lives have been devoted to their investigation. Libraries have groaned under the weight of the arguments they have provoked, and the dispute is still as far from settlement as ever. The cause of this is clear. The disputants have endeavoured to determine a question of *fact* by argument alone. Formerly, indeed, this was the favourite method for the treatment of all Science, which therefore made little progress. Long after the banishment of this philosophic folly from Physical Science and the substitution of *experiment* and observation for logic, of *facts* for argument, the same fallacious system was unfortunately preserved in the schools of Mental Philosophy and Psychology. In these Sciences alone the old folly has been retained, and even now it is but partially abandoned.

It is a just boast of the abused Phrenologists, that they were the first to revolt against the vicious principle of the Metaphysicians, and to assert that the Science of Mind must be pursued, like the Science of the Body, and like all the other Physical Sciences, by observation and experiment, by collection of facts, and by noting the manifestations of Mind in its normal, and still more in its abnormal, conditions. To the adoption of this principle we are indebted for the great progress made of late in Mental Physiology. (*a*)

The design of this treatise has been to apply the same fruitful principle of investigation to *Psychology*. Instead of *arguing* if man has or has not a Soul, it was my purpose to apply to the problem the principle that has proved so successful in other sciences. By observing phenomena and arranging them in something like orderly array, I hoped that it might be practicable to deduce from the *proved facts* some reasonable and probable conclusions as to the existence and nature of the forces that are found in actual operation in association with the Mechanism of Man. Although little was to be learned from the motions of that mechanism in its normal condition, when the machine is working smoothly, a great deal was obviously to be learned from it when observed in its abnormal conditions, when the hidden parts of the machinery are thrown out of gear. It was reasonably concluded that Forces, whose presence was imperceptible when working smoothly, would be exhibited when working irregularly, and thus that we should learn their uses by their failures, their power by their friction, and from their imperfect or misshapen products what are their proper functions. It was not anticipated that, upon examination, however careful, the thing that made the motion we call a force

(*a*) It is due to Mr. HERBERT SPENCER to acknowledge the great services he has rendered to Psychology by the adoption of this principle, and the foundation he has laid for it by a laborious collection of facts exhibiting human actions as indicating the mind that prompted them. Why does he not devote the like industry to observation of that mind in its abnormal conditions?

would become perceptible to any *sense*. But it was not unreasonable to hope that, if such a thing exists, though imperceptible to the senses, it would exhibit some action upon molecular structure that is perceptible, from which action we might reasonably infer its presence, and perhaps learn something of its nature. This manner of arriving at knowledge of the imperceptible is not new to Science nor peculiar to Psychology. It is recognised and adopted in practice by the Scientists in many departments of Physical Science. Electricians do not by any sense perceive *the thing* they call "Magnetism" or "Electricity." They cannot see, feel, nor hear these immaterial existences. But they are not the less assured of them. They do not refuse to treat them as verities because their senses are incompetent to perceive that which is of non-molecular structure. Their senses can and do, in fact, perceive the operations of the imperceptible and imponderable force upon molecular matter that is perceptible. They see the conditions of that matter manifestly changed by the operation of the unperceived agent. From the changes so observed they reasonably infer the existence of the agent, and are enabled to learn much, and are daily learning more, of its source, its nature, its qualities, its powers, and of the *conditions* under which it is manifested.

It is not true, as so many of our Physicists have affirmed, that we can know nothing of the imperceptible, and therefore that it is a vain and worthless study to inquire into Mind and Soul, of which our senses cannot take cognizance. The truth is that their existence and qualities can be discovered and investigated by precisely the same process, and with precisely the same confidence in the results, as are those of Magnetism and Electricity—by *study of their manifestations*.

And that is the purpose of this treatise. Few attempts have yet been made systematically to apply to Psychology the principle of investigation by observation of phenomena and collection of facts—employing the same method of treatment as is pursued in the study of any of the

Physical Sciences—that is to say—verifying and noting the *facts* and deducing reasonable conclusions from those facts. Therefore this endeavour is of necessity very imperfect. The phenomena reported, which are but one in a hundred of those collected, have been authenticated with the same precautions as would have been observed had they been submitted to a jury in a court of justice. The inferences from them are questions upon which opinions may fairly differ. I have stated what are the conclusions to which they have pointed in my own mind. The Reader will, I trust, clearly understand that I suggest those conclusions for his consideration merely. I do not advance them dogmatically, nor assert them as confirmed. I am myself only a student, not a master. I am learning and suggesting, in hope to stimulate inquiry and reflection. I am not dogmatising.

I will now briefly sum up the argument in a judicial spirit.

The working of the Mechanism of Man in a condition of health presents so few opportunities for insight into the interior of the machine and the manner of its movements that it has been treated of very briefly.

It is to the phenomena attendant upon *abnormal* conditions of the mechanism that we must look for revelations of the hidden machinery and the forces ruling it, and which we can learn only by their effects upon perceptible molecular structure; precisely as we learn the existence of electricity, which otherwise would be imperceptible, by its eliciting a spark from the molecules of the atmosphere with which it comes in contact when an obstruction is opposed to its passage.

I have arranged these abnormal conditions of the human mechanism in the order in which they appear to be associated, and I follow the links of a natural chain from the most familiar and frequent to the most strange and rare. Thus the Student of Psychology will be better enabled to pursue the inquiry, for he will see, probably with some surprise, how each phenomenon grows out of

the other and how one explains another. Beginning with mental conditions whose existence is undisputed, and of which we all know something (though not really so much as we think we know), such as *Sleep* and *Dream*, I proceed to *Delirium* and *Insanity*, unhappily too familiar to us, and thence to *Natural Somnambulism*, which also is an undisputed but more rare mental condition. As Somnambulism can be produced artificially, thus offering peculiar facilities for study of its manifestations, I have dwelt upon it at more length. The next in natural order was the cognate condition of *Trance*. Then the more complicated but still obviously allied condition of *Psychism*.

Before I trace briefly the links in the chain connecting these abnormal conditions, it will be necessary, although tedious, to repeat the *physiological* conditions under which their phenomena are presented. The explanation of them will be unintelligible without a clear conception of these preliminary facts.

Whether there be or be not a truth in the suggestion I have adventured, that the body is the product of a junction of two germs, there is no doubt that its structure is duplex. It is not *one whole*, as is a statue, but it is manifestly made of two halves joined together—precisely as if the sculptor had modelled and hewn his Venus in two separate parts, and then united and bound those parts together by wires, crossing from either part to the other. Thus it is that the two halves of the animal structure are joined, and the nerves that radiate from the nerve centres of each half of the body pass into the other half of it, and by this device half of the structure is supplied with vital force, not by its own nerve centre, but by the nerve centre of its ally. This important fact once questioned has completely been established by the experiments (described *ante*, p. 98) of Professor FERRIER. A distinct recognition of this structural scheme would be of incalculable importance to Science, for it would solve many perplexing problems in Physiology and explain much that has been hitherto inexplicable in Psychology.

Its value in the practice of medicine will be apparent at a glance.

And as it is with the nerves that feed the body with vital force, and carry to the muscles the command of the *Conscious Self*, so it is with the brain that directs the various actions of the body. That brain is also double. We have, in fact, *two brains*, as we have two arms and eyes. The brain is constructed of two distinct and perfect hemispheres joined together. As it is with the nerves of the body, so with the two brains, there is an exchange of function, the right hemisphere of the brain directing the motions of the left side of the body, and *vice versâ*. Consequently, all the functions of the brain are double. Professor FERRIER has demonstrated by positive experiment that the brain is not one organ, the whole of which is employed in every act of intelligence, but that various parts of it have distinct functions, even to the moving of particular muscles, and we may conclude, also, for the production of different emotions and acts of intelligence. Hence it is that all the brain organs are double, and that as we see with two eyes as two organs of vision, so we feel by two organs of emotion, and think by two organs of thought. Thus, as we can see with one eye, though not so perfectly, so we can feel or think, but likewise not so perfectly, with one organ of emotion or of thought.

The brain is the material organ by means of which the Mind or Soul—that is, whatever "I" am, or "you" are—communicates with the external molecular world. One part of this brain acts when we feel "hope;" another part when we feel "fear;" a third when we imagine, or sing, and so forth.

The student of Psychology must also steadfastly bear in mind that body and brain are *not solid*, as they appear to the eye, but constructed of molecules, themselves *probably* agglomerations of atoms in certain definite arrangements. *Molecules are the ultimate perceptible particles of* MATTER, although they are doubtless in magnitude as mountains to molehills compared with

the particles (for convenience called "atoms") that occupy all the non-molecular portion of creation; and which also (still for convenience only, and to distinguish it from "matter,") has been here called "spirit." These molecules, of which our bodies are builded *do not actually touch each other*. Atoms, and doubtless infinite varieties of atomic structure, can pass and permeate the whole mass of molecular structure as freely as the substantial body can pass through the yielding particles that compose the atmosphere.

So through this molecular structure of the Mechanism of Man can flow with equal freedom all the forces of Nature to which it is subjected, and by which it is moved, maintained, destroyed, and dispersed.

I repeat, that the scheme of this endeavour to make Psychology as interesting to the popular mind as it is profoundly instructive, by making its principles intelligible and describing in familiar language its scope and uses, has been to proceed from an examination of the most familiar and undisputed of the phenomena to such as are more rare and still more or less in dispute.

By the *psychological*, as distinguished from the physiological, phenomena of the Mechanism of Man, I intend such only as are associated with the intelligent forces by which the mechanism is moved and its molecules are directed and determined. These forces *physiology* fails to explain, because physiology can describe only structure and function. It opens the brain, and informs us that, by exciting certain parts of it certain effects are produced upon the body. It views the stomach and tell us, by observation of the changes that take place in the substances placed there, that its function is to digest food and then it proceeds to discover in what manner this function of digestion is performed. Here its work ends. It can manipulate molecular matter only, because that alone is perceptible to the senses. Physiology refuses even to inquire into the existence of anything not molecular, because it is incapable of being examined by its methods or by its instruments. Rightly it thus restricts

itself. If it were to look beyond *perceptible* structure, it would be trespassing out of its proper domain.

But the province of *Psychology* commences precisely where that of Physiology ends. It first asks, "Is there any existence of any kind not perceptible to our senses? Is there anything behind or beyond this molecular structure which our senses cannot perceive?"

The answer to this is instant and conclusive and will scarcely be questioned even by the most dogmatic materialist.

There is much that is *non-molecular;* in fact, the *molecular* part of creation is the least part of it.

The next question Psychology asks is, if this non-molecular, and, *to our senses,* "imperceptible" portion of creation is, and ever must remain, a closed book to us? Is our knowledge of Nature rigidly restricted to the intelligence our senses can convey? Or is there any process of investigation by which we may learn something of the non-molecular (and therefore imperceptible) portion of the Universe, and especially of as much of it as undoubtedly encompasses and underlies the molecular structure of this our world and our own structure also, everywhere permeating it and apparently giving to it that *vitality,* the sources of which Physiologists have sought in vain with their microscopes to find in the visible substance? They have been searching with commendable industry the grey matter and the fibre of the brain; but they have failed to discover *Mind* in it. They have dissected the eye with patience and skill, but they cannot find *vision.* They have resolved the whole body into its elements, and have looked in vain for LIFE.

And yet we know, though we cannot *perceive* them, that MIND, SENSATION, INTELLIGENCE, LIFE, are as absolute and certain realities as are brain, eye, and body.

Why, therefore, should the *Conscious Self* (or Soul), not be, merely because it is as imperceptible and as imponderable as Mind, Sensation, Consciousness and Life?

How do we acquire this knowledge? It is not shown to our senses. Physiology is powerless to prove it.

By MANIFESTATION.

We see perceptible molecular structure moved by *something* we cannot see. Thus we learn the existence and presence of that imperceptible *something*. We know that it is there as certainly as if we could see it, feel it, analyse it.

Then we note *how* this *imperceptible something* moves perceptible things. We carefully note the conditions under which it operates. We try *experiments* by changing the conditions and marking what changes are so wrought in results. Thus we learn step by step more or less of the nature and qualities of that imperceptible *something*.

Next comes the question, "Is this imperceptible something intelligent or unintelligent? Does it act with apparent *knowledge*, with a seeming WILL of its own? In this respect do the phenomena exhibited differ from those produced by other physical forces?"

If it be so found, we conclude with reason that, whatever that "imperceptible something" may be—however constructed, however operating—it has a *real* existence—as real as is the perceptible matter it moves and controls.

The investigation of all this is the province of *Psychology*, whose business it is to explore the non-molecular, and therefore imperceptible, forces, or things that exercise force, by which organic or molecular structure is endowed with Life and motion and controlled by *Will* and *Intelligence*. The scientific process by which that knowledge is obtained is by noting the manifestations of those imperceptible existences (whatever they be), as exhibited in their action upon the molecular structure which alone our senses are constructed to perceive.

If there be in Man anything other than molecular structure—anything united to it or associated with that structure—we should look for its manifestations in that part of his Mechanism which appears to be most immediately employed in the operations of Intelligence. We

should not expect to find them in the stomach, whose duty is digestion; nor in the heart, whose business is pumping. The brain is the molecular organ from which Intelligence proceeds. That is undisputed. It is disputed only if there be anything behind the brain, of which the brain is merely the outward and visible sign, something which thinks and feels according to the impression made upon the brain. Is the brain (and the nerve system of which the brain is a part) merely molecular, or is it Soul materialised so far as is necessary for communication with the molecular world in which its present existence is to be passed? *Can* it be that the molecular structure we see is *the Soul that is the Man* materialized at its points of junction with the molecular world? This is a conjecture merely, but it may be deemed worthy of thought.

The solution of this problem will certainly be difficult and may be impossible. But some advance can confidently be made, and we may discover enough to give us assurance that we are not wholly material—that we are something more than the molecular structure that is palpable to the senses. Although it may not be given to us to learn what that *Something* is, its past or its future, we may reasonably hope to prove that it exists, and to elicit very considerable knowledge of its character, its functions, and the manner of its association with the molecular structure. If such knowledge be attainable, it must obviously be sought for in the Mechanism of Man where Consciousness, Intelligence, and visible molecular structure are so blended that the keenest investigators are at issue whether the "Intelligent Force" proceeds from the one or the other, and are doubtful if two structures are concerned in producing the indisputable manifestations, or one only.

Accepting this as the true work of *Psychology*, I have invited the Student to survey with me the manifestations of that Conscious Intelligence to which we have given the name of *Mind*, intending by this term to express in one word all the various faculties possessed and exercised by

the brain, and by that which, if Mind is not automatic, must direct and possess the brain.

But when organic functions are healthily performed there it no consciousness of action. Only when the brain is disordered, or the relationship between the brain and its intelligent director is disturbed, when the mechanism is out of gear and works irregularly, are we enabled to trace the hidden processes by which the machinery is moved. Hence the almost exclusive attention here given to the abnormal conditions of the mental mechanism.

Of these the first considered, because the most familiar, were *Sleep* and *Dream*.

In *Sleep* there is a suspension of the control of the Will over the brain, and therefore over the body, whose voluntary motions are directed by the brain. The Will itself is not suspended, but only its power to command. As the consequence of this, the organs of the various mental faculties are subject to be wakened and stimulated to action by slight accidental excitement, produced by impressions feebly brought by the senses from without, or by action self-generated within. The whole brain is rarely at rest at once. For the most part some organs are inert, possibly slumbering, while others are awake and active. As the brain-organs of the mental faculties are duplex, it must often occur that one of the pair is at rest and the other at work. It is this partial exercise of the brain that produces the remarkable phenomena of *dream* —its incongruities, its impossibilities, which, although at the moment of dreaming we believe to be real incidents of our existence, yet cause in us no emotion of surprise. We are not conscious of absurdity in anything we dream that we do or see. Still more strangely, the mind not only invents a drama thronged with impossibilities, but it paints also the scenery, moulds all the actors, and places in their mouths dialogues appropriate to their various characters. Nevertheless, it is the dreamer's mind that plays every part and gives to each of its creations fit words and actions. This work of creative genius is executed nightly, not by the intelligent only,

but by the most stupid and illiterate, who, when awake, are poor in idea as in speech, but who, when asleep and in dream, construct a continuous story, invent divers characters and sustain them all, however numerous, by giving to each his appropriate expression. To understand the wonder of this, think what you would say of a plough-boy who suddenly, and without effort, should extemporise a story similar to one of his own dreams, and introduce various personages and distinctly describe them, giving to each a special character, and placing in all mouths dialogues apt to the character of each, embodiments more perfect than ever dramatist or novelist has painted? Would you not deem him to be an *inspired* ploughboy? Probably, a Spiritualist would declare him to be possessed by a Spirit, and acting under Spirit control. Yet is this seeming miracle almost nightly performed by every one of us.

But the *unwilled* action of the brain in sleep is not without *consciousness*, although without Will. The brain imparts its impressions to the *Self* (or Soul) in dream as when awake. We really have the idea and feel the emotion; we do not merely dream that we see and feel. The imagination presents the picture, and the picture so presented evokes the same mental emotions as if it had been real. If in dream we have in our minds *ideal* images of objects of love, fear, hate, we have *real* emotions of liking, dreading, or detesting. We may conclude from this that in dream the various mental faculties are capable of very much more powerful development than they habitually exhibit when awake. It is not yet ascertained what are the impediments to the action of the waking mind that prevent the exhibition by the several faculties of the same capacity and power as are displayed by the sleeping mind; but it may be surmised to be due to some change in the relationship between the *Self* and the body, by reason of which some restriction upon brain action exists in sleep which does not exist when we are awake. In sleep, the mind works, not only without the repressive control of the Will, but also with little interference by the body. In

dream, our lives are *thoughts*. Waking, our lives are *acts*. Thought flows with incalculable rapidity; but action is restricted to the capacity of muscular movement, which, from its structure, is necessarily more slow than thought. Awake, every mental impression, before it is expressed in a bodily act, has to pass through the process of impressing the *Self*, kindling the Will, stimulating the nerve centre, transmitting the nerve force through the nerve cords and contracting the muscles. In sleep, the mental organ produces the thought or emotion instantaneously, and this is at once accepted by the mind as completed, although, in fact, the waking process of completion has never been performed. This speciality of dream explains also the extraordinary difference in the measure of time as perceived by the sleeping and the waking mind. The dreaming mind is released from the obligation, imposed upon it in the waking state, of adapting itself to the capacity of the body. It is not clogged by corporeal conditions and can work as freely as if the bodily action followed instantaneously the Soul action. Something also is doubtless due to the concentration of the nerve force upon the lessened number of waking faculties, instead of its being diffused over the whole mass of the brain, as in the waking state it is.

This, sketched in outline merely, being the condition of the organism in Sleep and Dream, what difference is exhibited in *Delirium?*

Delirium is a continuous dream—more vivid and more *real* to the mind of the patient. The Will appears to exercise a feeble power over the mind, and consequently the dream is less confused, incongruous, and impossible than is healthy dream. Consciousness continues unimpaired—that is to say, the patient perceives his dream as in sleep, and usually the memory of it remains after health has returned, and often more vividly than of any natural dream or even than the impressions of his actual waking life. The condition is that of cerebral depression and not of cerebral excitement.

Insanity is a waking dream. It is a disease of the

brain, dependent for its character upon the parts of the brain that are disordered, and for its degree upon the extent of the injury. Hence monomania (or partial Insanity). Insanity of the whole Mind is of rare occurrence, save in the latter stages of softening of the brain at the base of the two hemispheres, where all the organs of the mental faculties meet and consequently all become more or less involved in the mischief. This is the *physiology* of Insanity broadly viewed. Its *psychology* may be thus described. There is *Consciousness;* there is *Will.* So far the condition resembles the waking state. But the disordered faculties act abnormally, either in excess, and then the Will wants sufficient power to control them, or feebly, and then they are incompetent to perform their proper functions in the combinations of faculties requisite to intellectual processes. So it is with the organs of the *emotions.* Disorder of any one of these is shown in excessive or defective action, in causeless passions or depressions. In Insanity, ideas are mistaken for realities, the visions of the brain for impressions brought by the senses; in this resembling Dream. Or the mental faculties are abnormally enfeebled; and then they are incompetent to the performance of their duties and all mental operations dependent upon proper action of the organs fail to be properly performed. The Insane believe their waking illusions, precisely as when *we* are dreaming *we* believe our sleeping illusions. But the madman *acts* the dream he believes; the dreamer does not act his dream, he only *believes* that he is acting it. Dreaming, *we* are mentally in the same condition as is the madman awake. The Insane are mad waking and sleeping. The sane awake are mad in sleep; but the madness of sleep passes away on the instant of waking—the madness of Insanity is permanent as is the disease of the disordered faculties.

Somnambulism is another undisputed abnormal condition. It resembles sleep in external aspect. But it is not Sleep and its psychological state differs much from that of dream. In Somnambulism, whether occurring

naturally or produced artificially, the Will is entirely powerless and consciousness is wholly suspended. In Dream, consciousness is preserved and the Will is often exercised, but its power to control the body has ceased. Here we again find proof of the existence of the *Self*, as distinct from the body. *Will* is the expression of the *Conscious Self* (or Soul) normally acting only through the molecular organ by which it controls and directs the body. In dream, we *Will* often—perhaps as often as when we are waking; but we Will in vain, because sleep has for the time paralysed the organ through which the Will controls the structure. From this fact we learn that the Will is not a function of the molecular organism, but is exercised by *Something* other than that organism,—that *Something* which is not the body but which here is termed the *Self* or SOUL. In this condition of suspended Will, it is manifest that some change occurs in the relationship of the Conscious Self to the molecular mechanism. There is at some point more or less of severance between them. The Self ceases to communicate with, or to receive communications from, the external world through the mechanism of the body. In this state it appears to act to some extent independently of the body—that is to say, it *obtains perceptions of the external world either directly or through some other medium than the customary one of the senses.* The patient perceives objects though the sense is sealed. He sees without sight, hears without ears, and feels without the sense of touch. I use these terms because they are familiar; but the process is *not* that of sight, hearing, and touch. *It is a perception by the Self, without the aid of the senses,* of objects which, in the normal condition of the organism, are perceptible only through the medium of those senses. How this perception is obtained, or what is its nature, we know not: we know only the *fact*—that it exists. It is one of the problems which it is the proper province of Psychology to solve by observation of and experiment upon the facts and phenomena presented by it.

The brain, thus dissevered from the controlling Will of the patient, appears to be subject to the control of any other Will coming into a certain relationship with it. What this relationship is, how it is established, or by what process it operates, is as yet unknown. It has been commonly attributed to some equally unknown and unproved "magnetic" influence, supposed to be passing from the active organism of the operator to the passive brain of the Somnambule and so setting that passive brain in action, in obedience to the Will that has been thus substituted for its own. This importation of a "Magnetism," whose very existence is unproved (and which is certainly *not* the force known to Science by that name), for the purpose of explaining the phenomenon of Mind influencing Mind, appears to be as facile and convenient a substitute for research into the physical cause, as is the introduction of Spirits of the dead to solve the problems presented by the phenomena of Psychism. Is it not more reasonable, when investigating rare and strange facts, first to exhaust Nature and see if Science can find a natural solution for them? May it not more probably be that, instead of an animal magnetism passing from the operator, the passive brain of the patient is set in motion by the process of "mental sympathy and communion" already described; that is to say, motion of the molecules of one brain setting up a like action in the molecules of the other brain, the motion being transmitted either by the atmosphere, or by the ether in which, according to Professor TYNDALL, the atmosphere is diffused, or more probably by means of the *supra-gaseous* fluid in which molecules float—for the discovery of which Science is indebted to Mr. CROOKES, F.R.S.

The brain being thus passive to its own controlling Will and subject to direction by another Will, it follows that those of its faculties only will be called into action which that Will wakens. The faculties thus excited exhibit themselves in vastly greater power than in the normal condition of waking existence, when the whole brain is being exercised, because the nerve force which,

in waking life, is diffused throughout the whole brain, in the passive condition of Somnambulism is concentrated upon the few faculties that are active, and which therefore express themselves with a *power* and *exaltation* proportioned to the excess of nerve energy thus imparted to them. This explains the extraordinary *mental exaltation* that usually characterises Somnambulism and is *always* seen in the allied condition of Trance.

Trance, again, differs from Dream in this. In Dream, some of the organs of the mental faculties are slumbering more or less, and the communication between the Will and the nerve system is interrupted. We know that in *Dream* the body does not obey the commands of the Will. In *Somnambulism*, the communication between the Will and the body is usually suspended, as in Dream, and the Will is paralysed. In Dream there is mental consciousness and consequent recollection of the dream; in Somnambulism there is no present consciousness and no recollection in the waking state. In Dream, the impressions of a waking mind cannot be impressed upon the sleeping mind, at least there is no sufficient proof of such a condition, although there are phenomena that might suggest such a conclusion in certain conditions of the sleeper. In Somnambulism, which is imperfect Trance, the impressions (or motions) of a waking mind can by mental sympathy be readily impressed upon the patient's mind. In complete Trance, there is entire unconsciousness at the moment and no recollection when awakened; but the Will is active and powerful. The patient dreams and acts his dream; he has a memory of that dream, but it can be recollected only when the condition of Trance recurs. In Somnambulism and Trance alike, though there is no *recollection*, when the patient wakes, of mental impressions received, or of any bodily action done, during the state of seeming slumber—it is certain that, when the condition recurs, the recollection of all that passed during all former like conditions returns also, but there is entire unconsciousness of all the memories of waking life. In *all* of these

abnormal conditions there is *memory*. But there is no *recollection, unless the same conditions recur under which the impressions were made upon the memory.*

What, then, are the *Psychological* conditions of these mental states, so nearly allied and yet presenting such different aspects?

In *Dream*, there is a *very partial* dislocation between the sleeping body and the *Intelligent Something* that governs it. The Will—which is the expression of that "Something" upon the organism—cannot in dream command the actions of the brain or of the body. Some link of communication between them, by which they work in concert in the normal condition of the mechanism, is suspended or severed.

In *Somnambulism*, there is yet a *further dislocation* between that "Intelligent Something" and the body. The Will is not only unable to command the mechanism —it is so far disconnected from the mechanism that it is itself suspended.

In *Trance*, this "Intelligent Something" exhibits what appears to be a *further dislocation* of alliance with the body, for in this condition the Intelligence possesses a conscious existence of its own, having its own memory and a manifest power of perception through some other medium than the senses. In complete Trance, the Will is awake, active, and controls *the body;* but the Mind receives no impressions, nor sensations, nor intelligence, through the body. Nevertheless, it has powers of perception extending far beyond the range of the bodily senses. The reasonable conclusion from these conditions of Trance is, that it is a state of the Mechanism of Man in which, by some as yet unexamined physical process, there is extensive dislocation of the normal relationship between the *Intelligent something* we call "Soul" and the body, by reason of which the "Intelligent Something that is not the body" is enabled to exercise some of its functions without the interposition of the body, which, in their normal relationship, is the only medium through which the *Conscious Self* can hold

communication with the external world. What that changed relationship is, how it is caused, how it works, and what are its consequences, are subjects of most profound interest for mankind, and will command the investigations of the Psychology of the future, devoted, as it must be, to observation and experience instead of abstractions.

But the phenomenon is of vast value, as supplying further cogent evidence that the Mechanism of Man is constructed of an *Intelligent Something* other than the body, and that *these are distinct entities*. It does not demonstrate, but it raises a strong probability, that this "Intelligent Something" is immortal, by the *proofs* it presents that, even in this life, that *Conscious Self* and body can, in certain conditions of the mechanism, be partially severed and preserve a more or less distinct existence.

Psychic Force we know only by its *manifestations*, precisely as we know *Magnetic* Force and the Force of *Gravitation*. Perhaps we can approach nearer to a knowledge of Psychic Force than of these physical forces, because we know that it proceeds from a living human body, and therefore we are enabled to give to it closer and more extensive study, and to question it by repeated experiment and test. Considering that Psychic (or Soul) Force has been recognised for only a few years, and that the other Forces have been known and investigated for centuries, extraordinary progress has certainly been made in knowledge of it. Great light has been thrown upon its source and upon the manner of its operation, through the Psychic conditions exhibited in the various abnormal states of the organism to which this volume has been devoted. It is, in fact, *Soul Force*. It may or may not be identical with *Vital* Force, or *Nerve* Force, if indeed these be not one force; but it is a force that comes from the *Conscious Self* (or Soul) because it is controlled and directed by the Conscious Self, which the nerve and vital forces are not. Psychic Force, as Psychology contends, is a force independent of the organism—the

producer and not the product of molecular structure, and, as I have ventured to suggest, moulding and making the molecular mechanism. But whether it be a force controlling structure, or a force produced by structure, and whether we call it *Psychic* Force, *Nerve* Force, or *Vital* Force, it cannot be seriously questioned by any Physiologist that such a Force exists. I have called it *Psychic Force*, as being a convenient name by which to signify a *something* as to whose existence there is substantial agreement, but about the origin, nature, and operations of which there is much disagreement. A vast amount of evidence has been already accumulated, proving the manifestations of Psychic Force. We see visible motions and hear audible sounds produced by some imperceptible force operating within a certain distance beyond the muscular action of a human being having a special constitution. We reasonably conclude, therefore, that the agent by which these effects are produced is something (as imperceptible to our senses as is the magnetic force) passing from the body of that person to the things so affected. It is not the only instance in nature of motion without contact and "action at a distance." The like phenomenon is familiar to us in the magnet, which has been investigated for many years, and still we are ignorant what is the *imperceptible something* passing between the steel and the magnet that causes the untouched thing to move; but we do not therefore question the existence of that "something." So, seeing things moved without contact, and "action at a distance" exhibited, in the neighbourhood of a person of a special physical constitution, we conclude the motion to be due to something connected with that person, and we further conclude that a force flows from him by which it is caused, in some such manner as the force that flows from the magnet. And it is almost equally obscure.

But in the case of the *Psychic Force* there is a fact that may help to throw some light upon the manner of its

action. We have seen above how, in those abnormal conditions of Dream, Somnambulism and Trance, there appears to be a progressive dislocation of the normal relationship between the body and the "Intelligent Something other than the body" that constitutes the individual Man. All the phenomena exhibited in each of these abnormal conditions are referrible to, and may be explained by, such a condition of the organism. There is in all of them a manifest disturbance of the normal relationship of the Conscious Self (or Soul) and the body. In *Dream*, the Self loses its command of the body. In *Somnambulism*, the Self loses consciousness of the doings of the body, and the control of the Will over the body is so paralysed that the brain can be subjected to the Will of a stranger. In *Trance*, the severance of the links between the Self and the body is so far extended, that the Self can, to a certain degree, act without the body, that is to say, it can obtain perceptions directly without the interposition of the bodily senses; it can live a perfect life of its own, having even a memory of its own which is not restored with the restoration of the normal condition of relationship to the body. But the Self must have some force of its own wherewith to control the body. That is the force intended to be designated by the term *Psychic Force*—that is to say, *the force which the Self (or Soul) possesses*—which, if there be a Conscious Self, it *must* possess—which, in the normal state of its alliance with the body, operates evenly and regularly upon the entire organism, through the medium of the nerve system, the proper channel for its expression. Hence that force is not perceptible save in the smooth, healthful, and harmonious action of the whole structure. But when a disturbance of the organism occurs, this *Psychic* (or Soul) *Force*, like all the other natural forces, exhibits itself in *ir*regular action, in excess in some parts, in deficiency in other parts. By the disturbances thus caused in all molecular structure within its range, phenomena are presented that startle us by their strangeness and their apparent inconsistency with the

natural (by which we mean only the *customary* or *normal*) course of things. Moreover, when there is such a dissolution of the normal relationship between the Soul and the body, the *Psychic* (or Soul) *Force*, instead of flowing through its proper channels, passes out of its bounds and manifests itself in *direct* action upon the external world, without the intermediate mechanism of the nerves, and consequently without the restrictions imposed upon its action by the conditions of that molecular mechanism. This is precisely what we witness with the other natural forces. The electric force which, when disturbed on its way, can rend an oak, is the same that speeds through our structures every moment of our lives, not harmless merely, but maintaining us in health and vigour. So it is with the *Psychic Force*. In its usual passage through a healthy organism, it moves so equally that its presence is unperceived. But if disturbed by abnormal conditions of that organism, it may, and *does*, equally with the disturbed electric force, exhibit its presence with a power, in a direction and to an extent that appears to us anomalous and strange. May it not reasonably and probably be that it is this *Psychic Force* which, in the normal state of the organism, we do not notice because its action is familiar and equable, but which when its presence is manifested by the happening of those partial disturbances of the normal relationship between the Conscious Self and the body attending Dream, Somnambulism, Trance, and Pychism, exhibits itself in abnormal action? May not Psychics be persons in whom this dislocation of the normal relationship of the Self and body is not only more extensive but more readily induced? In Trance, the mind is proved by countless experiments to perceive without the medium of the bodily senses. In this condition, may not the Soul also possess power to direct the action of its own force, without that intervention of the body which is requisite to its action in the normal state—and may not *this* be the answer to the question, not unreasonably put to us, "*What* is your Psychic

Force? *How* can it move matter, and *how* is it directed by Intelligence?" The answer in such case would be: "*Psychic Force* is the Self (or Soul) force. The Psychic is a person in whom there is an abnormal capacity for dislocation of the normal relationship of the Self (or Soul) and the body. In such a condition, the *Psychic* (or Soul) Force ceasing to flow through its usual channels manifests itself without them, as do the physical forces, in disturbing effects upon molecular structure. Psychic Force is imponderable—that is to say, like the electric and magnetic forces, it is not subject to the law of gravitation;—it penetrates and permeates molecular matter and, being imponderable, it neutralises in molecular matter the force of gravity. It is directed by Intelligence—but that is the Intelligence of *the Self* from which the force flows. The Self (or Soul), in the normal state of its connection with the body, can direct its Psychic (or Soul) force only through the agency of the brain and body, and to the extent only of the capacities of *their* structure. But, in the abnormal state of dislocation of that relationship as occurring in Psychism, the Soul can direct its own force immediately, without the agency of the body. Hence the phenomena we witness; hence its exhibitions of intelligence; hence the necessity for a Psychic.

This explains why a Psychic is *developed* by practice. Exercise makes this dislocation between the Soul and the body more easy and probably more extensive. Practice also improves the control of the Intelligence over the force. So it is with mind and body in the normal state of their relationship. Practice facilitates the obedience of the body to the Mind and increases the range of action in both. Thus we learn also why it is that, in Trance, the phenomena of Psychism are so especially powerful. In Trance, as we have seen, the dislocation between the normal relationship of *the Self* and the body is much more extensive than in any other known condition, and consequently the psychic action of the Self is then more free and untrammelled and less subject to be

limited in power or capacity by the restrictive conditions imposed by the structure of the mechanism.

Unconscious Cerebration explains perfectly so many of the hitherto inexplicable psychical phenomena that too much attention cannot be given to it by the Student. It is chiefly, perhaps wholly, the consequence of the duplex structure of the brain. It is because we have, in fact, *two brains* and *two organs of each mental faculty*, one of which can work while the other is at rest, that the Mind so often acts without our consciousness. But for the full exposition of this phenomenon the reader is referred to the chapter devoted to it.

Assuming the phenomena of *Psychism* to be real — that there *is* an unknown force directed by some Intelligence, but that this force can be exhibited only when a person of some peculiar organisation is present—the Psychologist is compelled to a choice between the following conclusions. Either:

1. The Intelligence is that of the Psychic.
2. Or, it is that of one or more of the persons present.
3. Or, it is that of some other being imperceptible to us. And, if so, it must be:
   (1) The disembodied Soul of a dead human being; or,
   (2) Some intelligent creature inhabiting or visiting this earth, imperceptible to our senses, and whose presence we can know only by inference from its actions; or it is
   (3) The Soul (or Conscious Self) of the Psychic.

The Spiritualists solve the problem easily enough by attributing all the phenomena to Spirits of the dead.

The reasons for dissenting from this conclusion are set forth at length in a previous chapter (*ante*, p. 384.) There is no satisfactory *evidence* bearing out such a contention. There is an overwhelming weight of evidence to *negative* it.

The possibility that this world is inhabited by a race of beings, not perceptible to our senses, inferior to ourselves in intelligence, and of whose existence we are ignorant, save under certain rare conditions, cannot

of course be positively denied, and such an hypothesis would sufficiently explain all the phenomena. But the existence of such beings is a pure conjecture. There is no *proof* whatever of their presence, other than the phenomena they are invoked to explain. This hypothesis might be admitted to controversy if we were driven to conjecture, in the absence of any other apparent and obvious cause. But we are not in such stress. There is another to which all the facts directly point, namely:

The *Intelligence of the Psychic*, whose presence is the one thing absolutely essential to the production of the phenomena, all of whose manifestations are plainly stamped with the characteristics of *his* Intelligence.

It is not necessary to repeat them. They have been already described at length.

I now close this *summing up* of the argument, inviting the reader to form his own judgment upon it. I do not ask him to accept all the conclusions to which I have come, but only to keep his mind open to *evidence*, and to enter upon the investigation of the magnificent Science of Psychology without prejudice or prepossession, with resolve to strive after THE TRUTH, THE WHOLE TRUTH, AND NOTHING BUT THE TRUTH.

CHAPTER II.

CONCLUSIONS.

THE Reader who has followed attentively the series of mental phenomena described in this volume, beginning with *Dream*—as the most frequent and familiar of them—and advancing step by step to the most rare and remarkable, as exhibited in *Trance*, will have observed that all of them have a very marked relationship; that, in fact, they are continuous developments, under varied circumstances, of a peculiar relative condition of the parts of the human mechanism. All appear to be *dislocations*, more or less, of the normal relationship of Soul and body—or, if the name be preferred—Mind and body. In *Dream*, the Will is paralysed, or, at least, its control over the brain as the organ of the mind and over the nerves of motion is for the time suspended, although self-consciousness continues. In *Delirium* there is the state of Dream, with inability to shake it off and instantly to start into waking consciousness, as in health. *Insanity* is excitement of some of the material organs of the Mind beyond the power of the Will to restrain them, or their depression below capacity for performance of their functions and, as the consequence, brain-bred ideas are so vivid as to be mistaken for external realities or the emotions are excited beyond the power of control.

In *Somnambulism*, the temporary dislocation of the relationship between the mental machine and the controlling Intelligence is still further extended. Not only is *the Will* paralysed, but *consciousness* is lost. Not only is the communication between the Will and the body

suspended, as in Dream, where the brain continues to work while the Self is unable to regulate its working, but in Somnambulism the brain itself appears to be passive to all influences from within and to be moved only by some influence brought to bear upon it from without. In this condition of further dislocation between the Self and the body, the Self is not only unable to communicate with the molecular world and be communicated with through its usual medium, the mechanism of the body, but, so long as this dislocation and severance from the usual channel of communication continues, the Self (or Soul) is manifestly enabled to receive impressions from the external world and obtain perceptions of it by some process other than that by which its perceptions are procured in the normal conditions of the mechanism. *It has, in fact, power to perceive directly, without the interposition of the bodily senses.*

In *Trance*, the dislocation has advanced another stage, with very singular consequences. The communication between the Soul and the external world, by means of the bodily structure, is in Trance *wholly* suspended. Sensation ceases. Consciousness is lost. The brain dreams. The dream is *acted*. But the Soul—by which I mean the individual "Ego"—then not only obtains perceptions by some other process than through the medium of the senses, but it appears to be enabled to project its *Psychic* (or *Soul*) *Force* beyond the body, and to influence by it external matter to a limited but not yet defined extent, precisely as do the physical forces.

Psychism is another form of the same state under different circumstances. It is a further dislocation of the normal relationship between the Self and the body, in which condition the Self, partially released from the trammels of the molecular body, is enabled, first, to receive impressions from without *directly*, or at least through some other medium than the brain and the senses, and, secondly, to exercise its Psychic (or Soul) force upon molecular matter directly, without the interposition

of the apparatus of the nerves, through which alone, in a perfectly normal and healthy condition of the organism, it is able to express itself upon the external world. Thus probably the Psychic obtains impressions on his mind of impressions then existing in the minds of persons who come within the influence of his *Psychic* (or Soul) force. Thus it is that motion is caused in molecular substances to which his *Psychic* Force is applied; and thus it is that his Conscious Self (or Soul) directs the operations of the Force. He has no consciousness of what his mind is doing, because the condition of Psychism, like those of Somnambulism and Trance, is a condition in which consciousness is partially suspended, by reason of the dislocation between the molecular organs and the Self, which are acting with partial independence of one another, aided also by the process described as *Unconscious Cerebration*. Hence, with the cessation of the abnormal condition and the resumption of the normal relationship between the Conscious Self and its molecular organ, the brain, there is no recollection of what occurred during the abnormal condition. Hence, also, the *recollection* of the incidents of previous like states, when the same conditions are afterwards resumed.

That this may be somewhat more intelligible to the reader I resort to a rude illustration. A musical box makes music by means of the striking of tongues of metal by small points of steel fixed upon a revolving barrel. So long as the barrel continues to revolve in the same groove the same tongues are successively struck by the same points, and the same tune continues to be played. Shift the barrel but a little, the tongues remaining stationary, and there is silence where there should be sound and discord where harmony should be. Shifted to another groove, another series of points being presented, the tongues are smitten in a different order and another tune is played. Thus it may be with three, ten, twenty, or any number of tunes for which the instrument is constructed. Restore the barrel to its first groove, the former relationship between the tongues and the points being then restored,

the tune first played will be repeated precisely as before.

This will convey some rude notion of what I intend when I speak of the *dislocation* of the relationship between the Conscious Self and the body, as exhibited in the allied conditions of *Dream, Somnambulism, Trance,* and *Psychism.* In the normal state of the organism, the Self and its molecular organ, the brain, are so nicely adjusted that they perform their functions without any jarring. But if this relationship be disturbed, the action is inharmonious, the impressions are wrongly received or not received at all, the right note is not struck, and no sound, or a wrong sound, follows. When the normal action revives and the disturbed relationship of the Self with the body is restored, it is as when the barrel of the musical box is placed again in its proper groove and the same tune is reproduced as if its course had never been broken.

If Man is not merely a molecular structure; if there be in him an *Intelligent Something* that is not the body, (although held with it in intimate alliance and co-ordination) a definite and distinct entity, subject to such a dislocation of its normal relationship to the molecular mechanism that they can, in certain abnormal conditions conduct independent action (as appears to be established by the various phenomena we have been reviewing) the very strongest presumption is raised that this *Conscious* and *Intelligent Something,* which, though intimately allied with the body is *not* of the body, does not perish with the body, but *continues* its independent existence after the molecular body has been resolved into its elements.

If in those abnormal conditions of its relationship to the body, the entity we call *the Self* (or Soul) reveals powers and capacities far exceeding those it can display when its communications are limited by the capacity of the molecular mechanism through which alone it can act and be acted upon in the normal condition, we can conceive what those capacities may be when that condition is changed and the Self, parted from

the molecular structure, is consequently enabled to act and be acted upon without the interposition of a slow moving mechanism, made of molecules, whose most rapid motions, compared with the activity of *the Self*, is as that of the minute hand of the clock to the speed of the lightning's flash. We may form some dim notion what must be the powers and capacities of the *Self* when wholly disembodied. Whatever it *believes* that it can do when there is a partial severance in *Dream* and *Somnambulism*—whatever it shows itself to be actually *doing* in the greater dislocation of *Trance* and *Psychism*—that and infinitely more it will be enabled to do when the severance is complete.

To this conclusion we are brought by fair reasoning, based upon the evidence of a vast body of *facts* carefully noted by competent observers. It is a strictly scientific process of proof, alone permissible in a treatise designed to investigate what Psychology has already learned, as well as to indicate the directions in which knowledge is as yet scanty, in hope that inquiry may be directed thither. Authority has been purposely excluded. So also has evidence of the universal belief of the whole human race, from the earliest time, as shown by Mr. TYLER in the chapter on "Animism" in his admirable treatise on "Primitive Culture." At the close of a purely scientific investigation, it is, however, satisfactory to find that the results at which we have arrived are in entire accordance with the teachings of every religion and the firm beliefs of all climes and times. Indeed, in such substantial agreement are they that it has almost the character of an *instinct*, and experience shows that those untaught impressions and unmotived actions we call *instincts* are *true*—that is to say, there is always an object, corresponding to the instinct, on which that instinct is designed to operate.

It may now, I trust, be taken as a *strong presumption* amounting almost to *proof*, that, "WE" are SOULS, of whom the body is the molecular mechanism for communication with the world of molecular structure in which the present stage of existence is passed, and that when

this machine falls to pieces the Soul survives—a living thing—constructed of some other combination of atoms than the molecular one.

But the question remains, the problem is still unsolved, does *the Self* (or Soul) preserve its individuality, its personality, its identity, when it is severed from the body? In its new stage of existence, has it a memory of the past, or, with the severance of the link that bound it to the molecular world, does it sever entirely its communication with that world?

The existence of *the Self* (or Soul) after the death of the body by no means implies that it should retain a memory of the past, or preserve its past sense of identity. The answer to this grave question will much depend upon what *memory* is. If memory be an action of the brain merely, the probability will be rather that memory and recollection die with the body. But if memory be an operation of the Conscious Self, the conclusion is almost inevitable that it survives with that Self. And if Memory survives, so must *identity* and *personality* attach to the disembodied Soul.

The reasons for holding *Memory* to be a faculty of the Self (or Soul), and not of the molecular brain merely, may be stated in few words.

If memory be a function of the brain, it is an action of the brain. All brain action is molecular motion. The mental condition we term "a thought" or "an emotion" is, in the normal state of the mechanism, attended by some motion of the molecules of a certain part of the brain. Memory is said by Physiologists to be merely a power possessed by the brain to reproduce certain motions of the molecules in the same order of succession in which they had been previously produced. When we see a book, for instance, the *physical* act of perception is produced by some molecules of the brain moving and placing themselves in a special relative position, which action of the brain impresses upon the mind the sensation we call "a book." This sensation was preceded or followed by other impressions causing other sensations. When any one of these

associated sensations recurs, the renewal of that position by the molecules of the brain causes the renewal also in like succession of the motions and impressions formerly associated. This process of renewal of past molecular conditions is the physical (not the *Psychic*) process of Memory. But the voluntary act of such revival is by exercise of the faculty of *Recollection*, which is often confused with *Memory*. Many things are impressed upon the *memory* which nevertheless we are unable to *recal*. Whatever molecular condition at any time takes place in the brain is doubtless capable of being reproduced—in common speech, is "in the Memory." But it depends upon the recurrence of some of the links of association when, or if ever, they shall be *recalled*.

This is the *physical* process of memory. The *psychic* process is more obscure. Probably it is effected thus. The Conscious Self takes cognizance of the action of the brain, and these molecular motions either excite or suggest ideas and emotions to the Conscious Self.

Now, seeing that the material structure of the brain is subject to continual change, not in the molecules only of which it is formed, but also by growth and development, and that no particle of the molecular substance of the brain of the child remains in the grown man, it is very difficult, if not impossible, to conceive how the countless millions of impressions made during a lifetime can be so preserved and marshalled upon this everchanging structure that all those infinite multitude of motions shall be capable of being reproduced by the new and wholly changed substance when the requisite associations are set up. This is more difficult to assert than even the doctrine of the Materialists, that the brain is the ultimate recipient of the impressions made upon it, and the sole *conscious* being to which those molecular motions are ideas and sentiments. The likening of Memory to a series of impossible mental pictures stored up in some impossible places in the skull, laid one over the other like so many photographs and from which Memory selects any one it wants at the moment, (which is the popular

notion of Memory) will be dissipated by very slight reflection upon the physical process. But, although it is so difficult to associate the existence of *Memory* and *Recollection* with any conceivable *physical* condition, the difficulty disappears if we import into the Mechanism of Man that which the phenomena we have been viewing appear almost to demonstrate—the existence of a non-molecular *Conscious Self* (or Soul), allied to the molecular body, which receives the impressions made upon the molecules of the brain, to which *Self* (or Soul) it is that the *sensations* belong, which possesses the *thoughts* and the *feelings*, which is the true seat of *Memory* and of that consciousness of *individuality* which is the consequence of Memory, and which employs the brain merely as the machine through which it receives its impressions. Such a mechanism explains also how it is that, when the brain is injured or enfeebled, the power of memory is destroyed or weakened and the capacity for recollection lost. The impressions, being received but imperfectly by the brain, are conveyed but imperfectly to *the Self* (or Soul). *Recollection*, which is a brain process, is revived but imperfectly through the agency of such a brain, because the power of association is enfeebled by the incapacity of that brain. But, released from the condition of receiving its impressions through the molecular brain and of recollecting through the brain-process of association, *the Self* (or Soul) would not only *perceive* all its memories at once, but the *recollection* of them would be regulated by some other process. Thus also would the conception of *time* by *the Self* (or Soul), now determined by the slow *succession* of brain impressions and recollections, be changed entirely in accordance with the infinitely greater rapidity of action, *insomuch that it might conceivably have no perception of time at all—the entire series of memories being present together.*

If *Memory* be something more than a condition of the molecular brain (and it is difficult not to conceive it to be something more) then we have further evidence of the existence of a *Conscious Self* (or Soul); and not of its

existence only, but of its capacity for a separate existence, and, above all, *proof*, almost amounting to demonstration, that if there be a Self (or Soul) and it survives the body, it preserves its *Individuality* because it possesses Memory.

But the Materialists ask, why we deem it to be necessary to plunge into Psychical Science, and hazard conjectures, and resort to difficult argument, to establish the future existence of the individual *Self* (or Soul) after the death of the body, when the fact, if it be a fact, could be proved by indisputable *evidence*, which ought to be forthcoming if there be truth in our assertion. "If," they say, "the Soul of one dead human being has ever appeared to any person, in any country, at any time, the existence of *the Self* (or Soul) after death will be conclusively established beyond all future controversy. Bring us a ghost, or conclusive proof of a ghost, or presumptive proof of fifty ghosts, and we confess ourselves conquered."

The issue thus raised is not unfair, nor unreasonable, and the decision of it ought not to be difficult. It is a question of *fact*, not a matter for argument. We may not waste time and toil in fruitless discussion whether ghosts can or cannot be. The single question permissible to Science is "*Are they?*" This is to be determined by *evidence* only—precisely as we should adjudicate on any other asserted fact.

The strange feature of this controversy is the combination of quantity with worthlessness in the *evidence* produced. There are few facts in Nature upon which there is such a universal concurrence of testimony. Ghost-seers and ghost believers are found among all peoples, of all ages and climes, equally among the civilised and the savage, the ancient and the modern. *Animism*, as Mr. TYLER so aptly terms this universal creed, has been an almost instinctive faith that preceded and produced, and did not, in his judgment, follow, the recognition of religion. There is no known religion, however rude or however advanced, which has not for its foremost article of faith, if not at its very foundation,

not merely the *existence* of Spirit, but the *reappearance* of the Spirits of the dead. It is not the Christian creed only, it is that of Buddhism and of Mahomedanism. All who believe the Bible must believe in ghosts, for it is full of them. Passing from peoples to individuals, the literature of every land teems with references to ghosts, which could not be made unless they appealed in some way to a popular belief. There is not a village that has not its ghost stories. There is not a family without some ghostly tradition. You cannot sit by a Christmas fire with half a dozen neighbours and moot the subject, without as many ghost stories being told and heard with half credulous, half doubting ears, by those who express disbelief. The most sceptical of us has in his inmost soul a lurking sense of semi-credulity which makes him, in spite of reason, feel not quite at ease in ghostly places; and many a man, who would face an army without flinching, would walk with unconquerable fear and shuddering through a lonely place reported to be haunted by a ghost. It was the remembrance of this unusual concurrence of opinion among all mankind that led Dr. Johnson to the often quoted assertion, that the evidence for the existence of ghosts is stronger than that for any event in history. Instead of a mental effort to *believe*, it demands the strongest exercise of the reason *not* to believe, and the instinctive creed often remains to influence the *feelings* long after the *judgment* is satisfied by argument that ghosts *are not* because they *cannot* be.

Still the reflection returns that upon this question depends a far more important one—the separate existence of *the Self* (or Soul) and its survival of the body. True, that the Self may exist and survive without the capacity to make itself visible to mortals. But if it can be demonstrated, by *positive* evidence, that *any one Soul of any one dead person* has *at any time or anywhere* presented itself to mortal eye, the whole controversy that has troubled preachers and philosophers, and upon which materialists and psychologists are contending, would be

settled at once and for ever. The being and future existence of the Soul would be *proved*.

Wherefore has this *not* been done? Why do not the disputants, dropping their worthless weapons and forgetting their endless arguments as to what *may* be or *may not* be, apply themselves, with the same perseverance as has been devoted to the investigation of other facts in Nature, to the settlement, *by evidence*, of the question, "Ghost or no ghost?" Is there such positive *proof* in any one case as would justify the assertion that a ghost *has been*, therefore that Soul *is*, and that Soul survives the body, preserving its individuality and identity?

For my own part I have sought in vain for an *authentic* ghost. I have searched books, I have examined living witnesses, but I can find no *unexceptionable* testimony. The evidence always breaks down somewhere. In the vast majority of the reported cases the alleged ghost was seen but by one person at the same instant of time, and, for the reasons already stated, such evidence is wholly worthless. Where two or more have testified to an appearance, there were discrepancies in description, and in no instance was there assurance that the necessary inquiry had been made at the moment of perception, so as to preclude the very probable solution of an exclamation by one suggesting the idea to the other. I have read with the greatest interest the two works by the Hon. DALE OWEN, (*a*) who has made so large a collection of "ghost" cases and taken so much pains to authenticate them, and yet I cannot place my finger upon one which in a court of justice would bear the scrutiny of judicial investigation. I have applied to living persons who are said to have seen a "ghost," but the greater portion of them, being pressed, confessed that the story came to them from some other person, and, we may be

(*a*) "*Footfalls on the Boundary of another World*," and "*The Debateable Land between this World and the Next*." London, Trübner and Co.

sure, lost nothing in the passage. The few who had personally seen broke down upon a few questions in the nature of cross-examination. Always there was something wanting to make authenticity perfect.

"Ghosts," therefore, must be deemed at present to be *problematical.*

And this difficulty in proof of but one of the reported thousands of cases goes far to confirm the argument here maintained, that, although, in experiments in Psychism, many of the acts are done and appearances presented which are reputed to attend supposed Spirits of the dead, the agents there seen are *not* Spirits of the dead, but some other agents by whom those very *un*spiritual performances are enacted.

In default of such *positive proof* as the re-appearance of one dead person would give us, and which alone would preclude all further controversy and determine for ever the question of a future existence for man *scientifically*, as it is declared theologically, Science must ask, what are the presumptions reasonably raised by the undisputed facts? Reviewing those collected in the preceding pages of this volume, and the multitude from which they are but a selected fragment, surely the most sceptical Materialist will not deny that there is cogent, if not conclusive, *evidence* that the Mechanism of Man is constructed of an exquisitely designed molecular machine, possessed and directed by an *Intelligence* that is something other than the Mechanism so controlled, and which "Intelligent Something" is here called *the Self* (or Soul);—that this Soul, in the normal conditions of relationship with the body, communicates and is communicated with only through the molecular mechanism of the body; that in certain abnormal conditions this Self (or Soul) is enabled to make and receive communications otherwise than through the medium of the bodily organs; that the Self (or Soul), being structured of material other than that of the body and capable of partial action without the body is not likely to perish with the body, because none of the causes of bodily decay attach to it; that if it survives

the body, having its faculties released from the restraints imposed upon them by the bodily conditions, the emancipated Self (or Soul) must enter upon a new existence with vastly extended capacities, necessarily consequent upon its non-molecular structure, that its progress from world-life to a larger life implies continual progress in accordance with the principle of evolution, and that life after death has an existence without an end, but through endless changes of being.

And an unending life is strictly in accordance with all the teachings of Science. The Materialists themselves proclaim it: "There is no death," they say; "nothing perishes. It is a change of form, not a change of being. The life departs from us. The organic laws lose their power over the structure they have builded. The chemical laws resume the power that had been for a time suspended by the greater power of the organic laws. The particles, which the organic force had attracted and moulded into shapes of flesh and bone, separate and seek other combinations, according to their affinities. We mingle thus with the earth and with the air. We pass into new shapes. We wave in the grass; we smile in the flower. We enter into other animal forms; we pour through new veins, quickening new hearts. Not one solitary atom of us perishes. We are eternal, in the sense that the material of which we are made is imperishable. We shall live again in *some* shape, in the course of the great cycles of the ages; but in the combination that constituted the being that you are or that I am—*never*."

To this Psychology answers, "You are right if 'you' and 'I' are merely the bodies we see. Our bodies *will* die, and be dissipated, and enter into the composition of minerals and gases, and be absorbed by vegetables, and assimilated by animals, and go to form the *bodies* of other men. If there be only body, your history of us is true. But if there be in Nature something that is not molecular matter, something of other than molecular structure that has *Intelligence, the* something we call *the Self* (or Soul), in *that* we shall find the Intelligence which undoubtedly

possesses and controls the body, and which is so difficult to conjecture as being the product of the body itself. When the body is dissipated, what becomes of this Self (or Soul)? If the body does not perish, it is still less likely that this Self should perish. But if it survives the body—where?—how? The question admits but of two solutions. Either the Self preserves its individuality,—and thus there is the future existence for which I am contending,—or it is absorbed in the great ocean of Soul—if the expression may be allowed—which in such case must be, and from which new shapes of Soul are for ever being individualised." The phenomena described in this volume will doubtless be accepted by the reader as *strong presumptive evidence,* to say the least of it, that the condition of a continued individual existence for the Conscious Self (or Soul) is the most probable.

To pursue the Science of Psychology successfully, it is necessary, by a great effort, to make clear to the mind the conceptions of *Time* and *Space* as being only the conditions under which the mind, acting through a material brain, is compelled to think, and to conceive of *Soul Existence* as exempt from those conditions. Something of this may be seen in the phenomena of Dream, where the events of a month are crowded into a minute and thoughts pass from place to place without perception of intermediate distance. We are accustomed to speak of the Divinity as being omnipresent, as having no time and no space. Has the reader ever attempted to conceive such a condition? The ready answer will be that it is inconceivable. But it is not altogether so. A dim notion of it may be obtained by a grand conception put forth by an anonymous writer some time ago, then reported as the work of BABBAGE, (*a*) a brief sketch of which will

(*a*) *The Stars and the Earth; or Thoughts upon Space, Time, and Eternity.* Seventh Edition. London, Bailliere, 1862. It is, I believe, the production of M. Flamarion, the great French Astronomer.

worthily conclude this very imperfect endeavour to inform the Student of Psychology what a vast world of the most magnificent knowledge lies before him, the exploration of which will certainly reward him with an untold wealth of thought, with a new and enlarged interest in Man, in NATURE, and in GOD, and with a confidence, founded upon *evidence*, that for him there is no Death, but only a passing away from one life to another.

Light travels 213,000 miles in a second of time. We do not see the Moon for a second and a quarter, nor the Sun for eight minutes after it has actually risen. The ray from Jupiter comes to us in fifty-two minutes; from Uranus in two hours. The light of the nearest fixed star travels for three years before it reaches our eyes. The light from Vega, in the Lyre, has a journey of twelve years. The ray we see from a star of the second magnitude has taken twenty years to reach us; from a star of the third magnitude, thirty years; from a star of the fifth magnitude, sixty-six years; from a star of the sixth magnitude, ninety-six years; from a star of the seventh magnitude, one hundred and eighty years; and from a star of the twelfth magnitude, the smallest visible through a powerful telescope, four thousand years. Hence, we see the stars, not as they are, but as they *were* at the time when the rays that at this moment strike our eyes first quitted them. Consequently, a star may have been extinct for a period longer than the Christian era and yet be visible to us now.

As we see a certain star, say Vega, as it was nine years and a quarter ago, an observer on Vega would see our earth as it appeared *then*. An observer from a star of the twelfth magnitude would, at this moment, see our earth, not as it is now, but as it *was* four thousand years ago, when Memphis was founded and Abraham was wandering upon its surface.

A clear conception of these facts will enable us to form some conception of that which to most minds is merely a vague expression, without anything like a definite

notion attached to the words OMNIPRESENCE and OMNISCIENCE.

Imagine a Being possessed only of superior human powers, that is to say, with a sense of sight infinitely extended. Let him be situated at some point in space, at which the reflected light from the earth is arriving. He would see what was passing upon the earth at the time when that ray left its surface. If at the Sun, he would see the events that occurred here eight minutes before. If at Vega, the events of twelve years before. If at the star of the sixth magnitude, what occurred ninety-six years ago; and, if at a star of the twelfth magnitude, the occurrences of four thousand years before.

Inasmuch as space is boundless, the rays transmitted to it move on for ever. Hence, there is no incident, however trifling, that ever has been, that does not exist at some point in space, and an Intelligence located at that point would see it as a thing present, although it actually occurred thousands,—nay, millions,—of years before.

A Being omnipresent in space must therefore be *Omniscient*. He must perceive all that has been and all the past must be present to him.

Omnipresence and *Omniscience* are identical.

And inasmuch as that which has occurred in this earth, or in any other of the worlds, is always visible somewhere in space—as, for instance, an event here is visible at the sun in eight minutes, at Vega in nine years, at a star of the twelfth magnitude in four thousand years, and so forth, it is obvious that *events contiguous in Time are also adjacent in Space.*

Hence to the Divinity *Time and Space are identical.*

Are they not also identical *in fact?*

Suppose a man to be transported to different points in space, with a knowledge of all distances, and provided with a telescope that would make all objects visible at any distance.

Such an observer would be *Omniscient.*

For instance—Does he desire to see the historic scene

of Luther before the Council of Worms. He must go to some fixed star, where the light of the earth arrives in three hundred years, or as the case may be, and he will then view that drama in action. From another fixed star he would see the Saviour on the cross. From another, the building of the Great Pyramid, and so forth.

Thus the Universe contains an indestructible and incorruptible record of all the events of the past. They have been projected into the ether, and are carried forward into space by the wings of light, actually existing in form and colour. The most secret deed that is done lives through eternity. There is no act of virtue and no crime that is not projected into the heaven, painted upon space, and retained there for ever!

Now let us imagine our observer placed on a star of the twelfth magnitude. He would see what was occurring on our earth four thousand years ago. Let him advance towards our earth, say, until he has reached the Sun. In his flight he would have seen all the events that have occurred from the time of Abraham to the present day. He would meet them coming.

Suppose him further to have made this flight in a year. Then in one year he has lived the events of four thousand years. But, suppose his transit to have been accomplished in a moment, as Spirits can. Then he will have lived four thousand years in a single moment, because he will have lived the events of four thousand years.

He has been in fact *Omniscient* and *Omnipresent.*

We can thus be made to some extent to conceive of Omniscience and Omnipresence. We are enabled to understand the meaning of the text, "One day is with the Lord as a thousand years, and a thousand years as one day:" (2 Pet. c. 3, v. 8.)

It is thus also demonstrated how that, in truth, *Time and Space are merely human inventions.*

In further proof of this, suppose everything to be simultaneously reduced in time by one-half—the year to six months, the day to twelve hours, man's life from

eighty years to forty years. We should be wholly unconscious of the change. Every act would be done with double speed, and all about us being equally affected, we should be cognisant of no change, as we are not cognisant of the motion of the earth because all about us moves with us.

So likewise, if everything were to be reduced in *magnitude* by one-half, we should not be conscious of it. So also it would be if *Time* were diminished indefinitely, or size indefinitely contracted.

Thus it is proved that *Time is a human fiction.* It exists in our conceptions only, not in reality. Our idea of it is the consequence of the molecular structure of the brain, which can work only by successive actions and under conditions that make action comparatively slow. Released from that structure the Soul must necessarily have quite other conceptions of *Time,* and perceive and think and feel under conditions altogether different.

The same argument applies to the conception of *Space.*

If all measurements were to be reduced simultaneously by one half, we should be wholly unconscious of the change, and this process of reduction might proceed infinitely and still we should be unconscious of it. Take the Magic Lantern as an illustration. A picture traced on glass in transparent colours is painted upon the screen. How? The rays from that picture upon the glass pass through the lens and are there converged to a point whence they are again diverged and are transmitted in a wider circle. But the large picture on the screen, like the picture on the glass, was all contained in colour and in form in a mere point at the focus, the whole being infinitely condensed and yet absolutely perfect.

Or better still is the illustration of the eyes. We stand on a mountain top, and spread before the eyes are hills, valleys, rivers, lakes, towns, villages—a stretch of country of a hundred miles. All within the range of vision, with all its infinite forms and colours, is precisely painted upon the retina of the eye, in a space which the head of a large pin would cover. What the Mind actually sees is

this infinitely minute picture upon the retina, not the scene itself. This *speck* it is that to our minds conveys the notion of huge mountains and the countless slopes and shapes and hues of miles of landscape. The Universe might thus be condensed to an infinitesimal point, and yet appear to the spectator of any magnitude.

Space is thus shown to be a human conception only. It is a mere idea of space only that we have. We *imagine* the vast expanse; what really we *see* is only a pin's point.

May it not well be, then, that the Universe itself does not exist in the expanded form or even in the shape we think we see, for are not these also dependent upon our human mode of perception!

Consequently, a point of view is conceivable from which the Universe might exist without the expansion of Time and Space.

This is but a glimpse of the new and vast world of knowledge which must be ours "when we have shuffled off this mortal coil," if (as I presume to hope in this little treatise I have made some approach to *proving*) *we have Souls*, or as I have ventured to suggest—WE ARE SOULS.

Thus we are enabled to arrive at *some* definite conception of that which the Materialists reject as being inconceivable—an IMMORTAL SOUL—an OMNISCIENT and OMNIPRESENT GOD.

APPENDIX.

SINCE the printing of this volume, Science, abandoning *à priori* argument and adopting experimental research, has fully confirmed all the phenomena of Artifical Somnambulism described in these pages, but hitherto angrily denied by the Scientists. The following report is taken from the *Times* of the 23rd January, 1879. A similar report has been supplied to the *Standard* by its Paris Correspondent.

DEMONSTRATIONS OF SOME ABNORMAL NERVOUS STATES.

FOR some years past Dr. Charcot, an eminent medical professor has been giving, at the Asylum of La Salpetrière, Paris, extra-official courses of clinical lectures on the nervous maladies with which his work is so largely concerned. These weekly lectures have been highly popular, and special interest has been excited this year, as the professor has taken up questions connected with somnambulism and animal magnetism, a class of phenomena which have, perhaps, been too much in the hands of charlatans hitherto, and the truth about which has been largely mixed with error and absurdity. Reporting the professor's experiments to *La Nature*, Dr. Cartaz considers he has given positive demonstration that somnambulism, catalepsy, &c., are among the numerous forms of hysteria. Dr. Charcot showed that certain hysteric persons could be easily thrown, under certain conditions, into such states. Thus a patient is placed before an intense light—*e.g.*, the electric—and requested to look at it. In a few seconds or minutes she become motionless in a state of catalepsy. The eyes are fixed: the limbs are supple, and will keep any position given them. In this state the physiognomy seems to reflect to some extent the expressions of the gestures; if the limbs be put in a threatening attitude, the face darkens; if the fingers be joined on the lips as if to wave a kiss, the face becomes smiling and open; but beyond such modifications from attitude

the patient remains impassive, fixed, and insensible to the outer world. If the luminous beam be now interrupted with gives a screen or by closing the eyelids, the catalepsy suddenly place to a state of lethargy or somnambulism. The patient falls on her back, her neck being stretched, her breathing loud (accompanied by slight hiccup), the eyes convulsed, with all the symptoms of the beginning of a hystero-epileptic attack. On being called loudly, she will rise and come to the person calling, will perform at request various combined movements, as writing, sewing, &c., and sometimes answer questions, all the time being in complete anæsthesia. Other agencies besides light will bring on those crises—*e.g.*, they may be produced by sound; and to illustrate this Dr. Charcot produced a gigantic tuning fork, giving a very deep note, and sounded it when one of the patients was seated on the resonance-case; she soon fell into catalepsy. The somnambulist state is easily dissipated—*e.g.*, by blowing in the face. One notable experiment of Dr. Charcot proved that the two states—catalepsy and lethargy—could exist simultaneously in one person. The patient being put into the former state is made lethargic on one side by closing the eye of that side or shutting off the luminous ray from it with a screen; this side (say the left) has then no longer the property which the right has of maintaining any given attitude in the limbs. A peculiar muscular hyperexcitability (as Dr. Charcot further shows) appears with the lethargy. By gently pressing or rubbing a muscle it can be made to contract immediately; and on pressing the trunk of a nerve, the muscle to which it passes will contract. In this way may be produced those various facial changes which Dr. Duchenne, of Boulogne, has obtained with electricity. The nature of the nervous disorders in question is far from being adequately known as yet, and Dr. Charcot does not offer any scientific explanations. It is important that exact observations should be accumulated, and the precise conditions of the phenomena, their modifications under such and such causes, &c., fully determined.

FINIS.

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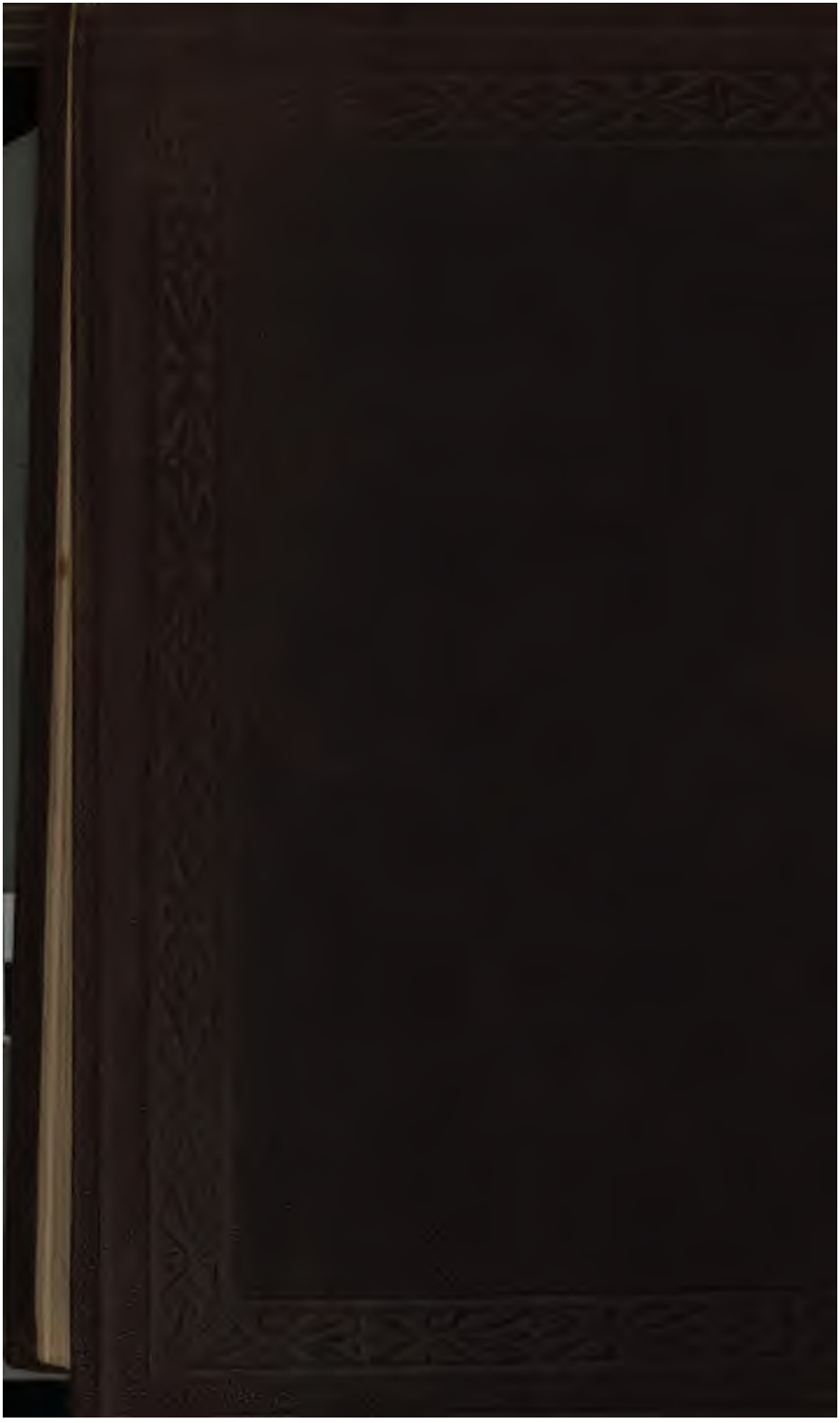
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